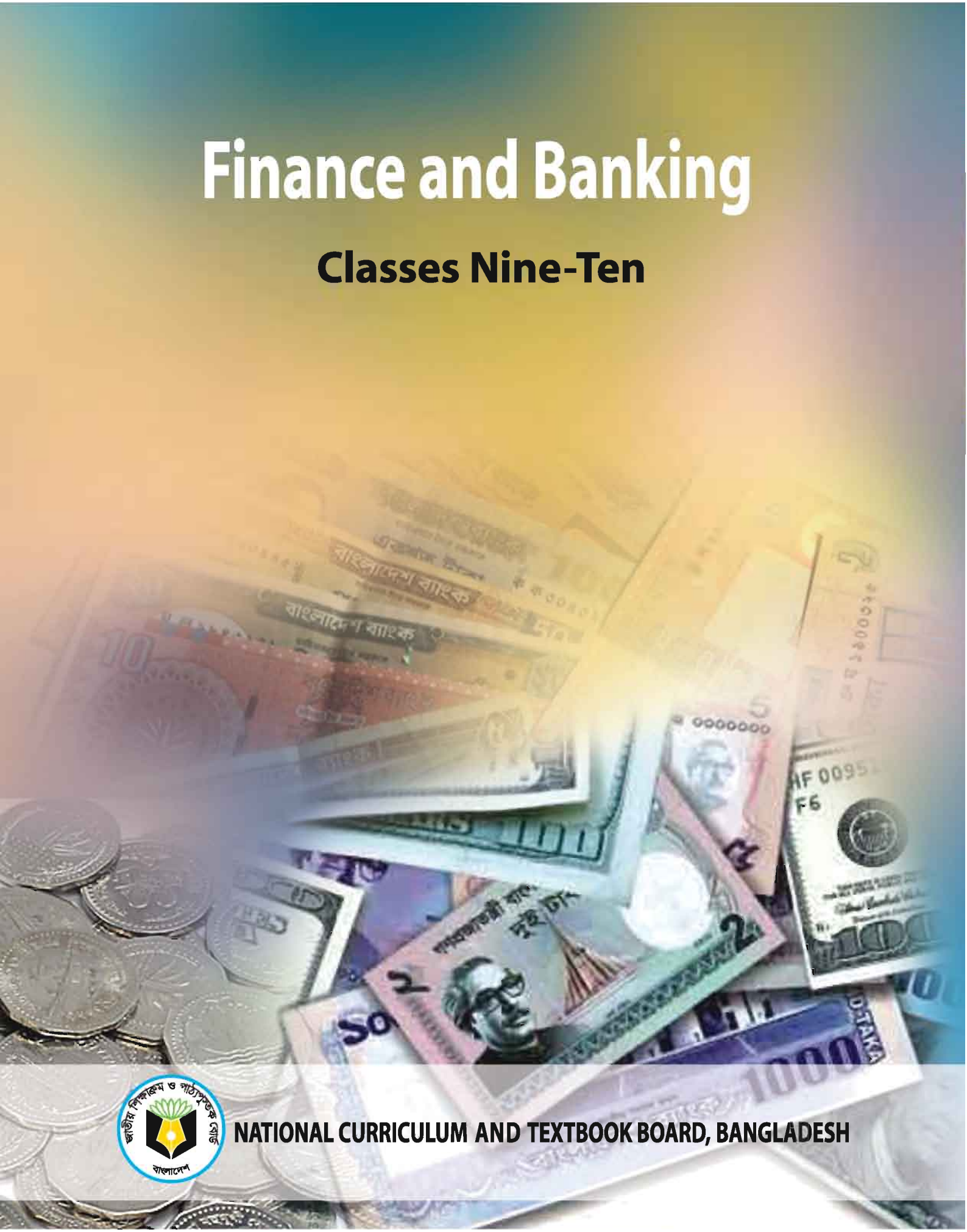
Finance and Banking

Classes Nine-Ten



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Finance and Banking

Classes Nine-Ten

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Preface

The aim of secondary education is to make the learners fit for entry into higher education by flourishing their latent talents and prospects with a view to building the nation with the spirit of the Language Movement and the Liberation War. To make the learners skilled and competent citizens of the country based on the economic, social, cultural and environmental settings is also an important issue of secondary education.

The textbooks of secondary level have been written and compiled according to the revised curriculum 2012 in accordance with the aims and objections of National Education Policy-2010. Contents and presentations of the textbooks have been selected according to the moral and humanistic values of Bengali tradition and culture and the spirit of Liberation War 1971 ensuring equal dignity for all irrespective of caste and creed of different religions and sex.

The present government is committed to ensure the successful implementation of Vision 2021.Honorable Prime Minister, Government of the People's Republic of Bangladesh, Sheikh Hasina expressed her firm determination to make the country free from illiteracy and instructed the concerned authority to give free textbooks to every student of the country. National Curriculum and Textbook Board started to distribute textbooks free of cost since 2010 according to her instruction.

Due to amazing development of science and technology the students of new era are facing a changing world. The patterns of business, finance and banking activities have been changed and the view of mass people have been also changed. According to direction of National Education Policy-2010 **Finance and Banking** subject has been incorporated in new curriculum. As per the revised curriculum this book has been introduced for class nine-ten.

Considering the challenges and commitments of 21st century and following the revised curriculum the textbook has been written. Recently through the rational evaluation and tryout program, the textbook has been made flawless by correction and revision. I hope the outcomes of the program will be reflected in this revised edition. We will continue our effort to make the next edition of this book more beautiful, decent and free from any type of errors.

I sincerely thank all for their intellectual labor who were involved in the process of revision, writing, editing, art and design of the textbook.

Prof. Narayan Chandra Saha
Chairman
National Curriculum and Textbook Board, Bangladesh

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Chapter One
Finance and Business Finance

With the gradual progress of society & civilization and the development of science and technology, the scope of trade and commerce has also been increased. Hence, the product-market has to cope with diverse competitions. To make profit in this competition, a businessman has to utilize his capital efficiently through proper planning so that the cost of production or selling can be kept to a minimum. This is how, a business firm can maximize its profit. For that purpose, every business firm collects its necessary fund for investment from the most desirable sources, and invests it in the most suitable project by analyzing various information of the product-market. This creates inflows and outflows of fund in the business. Finance regulates these flows of fund nicely. Different principles of finance are used in this process of regulation. Financial management helps a businessman earn enough profit from investing even a small amount of capital. Now-a-days finance is no more used as a supporting system but as the main driving force of business.

Picture: Industry

After reading this chapter, we shall be able to-

- know the definition of Finance;
- describe the evolution of Finance;
- analyze the classification of Finance;
- explain the importance of Finance;
- explain the principles of Finance;
- describe the functions of Financial Manager.

1.1 Concept of Finance

Finance deals with fund management. Finance prepares plans and implements necessary activities about what amount of fund should be collected from which sources and where & how this fund is to be invested for highest profit in the project. In case of a business firm, fund flows in the business from selling of products. Different types of funds are needed to produce and buy goods for the business, such as purchasing machinery, purchasing raw materials, paying wages to the labours, etc. These are the utilization of fund. Funds need to be collected in a planned way as per the requirement of fund to maintain an uninterrupted production process. Finance means this process related to fund collection and utilization.

Group Activity: Students will present the list of regular expenditures and heads of large expenditures of their family and write down the features of family finance.

If you visit a tailoring shop in your locality, you will see there one or two persons sewing with a machine. Again, someone may be cutting clothes or stitching the buttons. So to continue the tailoring business properly, the shop owner has to purchase sewing machines, threads, buttons, scissors etc. of necessary amount. At the beginning of his business he bears these expenses from his own saving. If the fund appears insufficient, he may take loan from his relatives to overcome the shortage. When the business is in operation, at the end of every month he needs to bear expenses for the payment of workers' wages, house rent, electricity bill etc. and he pays all these with the money earned by sewing clothes. He also has to plan to pay back the loan money from this monthly collection. An owner of a tailoring shop always expects that he can earn some amount of profit even after meeting all necessary expenditures from the income of the business, by which he can save for the future or can utilize for business expansion even after meeting regular expenses of his family. So if an owner of a tailoring shop conducts business through a proper planning regarding the source of finance and its utilization, only then he can earn profit through smooth operation of the business. Otherwise it will be found that due to cash crisis sewing thread cannot be bought timely and so the customers are going back. Again, it may be needed to shut down the business due to lack of money to buy a new machine replacing the old one. To conduct the business properly, business finance deals with when and for what reason how much amount of fund is needed and from which sources this fund should be collected for smooth operation of the business.

There is implication of finance in family too. Generally, every family has one or more than one sources of finance. Income may be obtained from different sources in different families, such as, from service, business, agricultural activities, self-employment etc. Besides these, regular expenditure of a family occurs for daily shopping costs, house rent, school fees, different bills payment etc. As expenditure should be matched with income, in this way, right time of expenditure should also be maintained. If money is insufficient as per demand, then as an example, it may happen that name of the student may be crossed out from the register. In case of a family, pre-planned identification of the sources of fund and its utilization is the financial process. Other than daily expenditure of this type, sometimes occasional expenditure may be required in the family which may exceed the income ability of a person. If it is not possible to collect money from regular income sources for such expenditures like buying a new television or refrigerator, then the shortage may be fulfilled through long term loan. In that case, a loan repayment plan needs to be prepared. As a result, the concepts of finance helps determine the sources of fund and make proper management of it conduct the family smoothly.

Financial process can be understood from the perspective of a school also. School is a social organization main objective of which is not earning profit. There is also a plan of income- expenditure and fund management. Educational institutions generally collect fund from sources of their students' tuition fees, examination fees, admission fees etc. The institution has to meet different expenditures with this fund to run the academic activities properly. These can be payment of teacher-staffs salary, house rent, electricity bill, different types of renovation expenses, purchasing computer and furniture. So, ensuring fund management for performing various working processes of the institution nicely by considering different sources of fund and different sectors of utilization is financing in the perspective of the school.

Among above examples, tailoring shop is a profit making organization, but family and school are non-profit organizations. Our present topic is involved mainly in financing of profit-making or business organizations. How is the financial process of a grocery shop? The shop owner earns profit by selling products. But for the purpose of selling, on regular basis he needs to complete the activities of purchasing products, paying rent, electricity bill, wages of the workers, etc. as current expenditures. Moreover, sometimes he has to spend a large amount of money for purposes like expansion of business for the need of

the customers, purchasing a refrigerator etc. These are his fixed expenditure. Thus a grocer requires to invest both in fixed assets and current assets. If income from selling is not sufficient for collecting fund for investment, he has to collect fund from other sources like personal fund, friends-relatives, purchase on credit etc. Again, he may collect large amount of money which he needs to invest in fixed assets usually from commercial banks. In such financing, as there is the opportunity of repaying in long schedule of time, the risk of loan repayment is reduced a bit. In the case of a grocery shop, main activities of business finance are fund management through proper utilization of money received from sales proceeds in meeting current expenditures, some long term investments, collection of money from less risky sources, timely repayment of loan installments etc.

Square Pharmaceuticals, Bata Company, Kohinoor Chemicals - these are large size business organizations which are called companies. Financial process of such a company is not so simple like grocery shop or tailoring shop rather it is comparatively complex. In fund collection, a large company gets more benefit than a small organization. For example, a company collects capital by selling shares in the share market. Company's goodwill, rate of profit, customer services or consumers' satisfaction help increase the share price in share market. Business finance deals with and provides guidance regarding when and how much of a source among different sources should be used to collect fund and in which sectors, how much of it and how it will be invested to increase the profit.

1.2 Classification of Finance

Financial process is as important for a business organization as it is for a non-profit organization. Every organization is involved with a financial process. Financial process takes different forms for different organizations. Now we will discuss classification of this finance. Though our main concentration is business finance, we will also get a brief idea of the financial processes of some other organizations.

a) Family Finance

In family finance, the sources and amount of income of the family are identified and how this income can be utilized for the overall welfare of the family members is determined. Among innumerous necessary expenditures, the most important expenditures are fulfilled on priority basis. If family income is not sufficient, loan can be taken from the relatives, familiar persons or friends.

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Regular expenditures are determined by considering the regular income. Bank loans can be arranged for fixed assets like television, freeze, car, building construction etc. But, as the collected fund is limited, it needs proper utilization. If the collected money is in excess, remaining amount can be saved for future use.

b) Public Finance

Every government has its own financial management. In the case of a government, how much on which areas will be the probable yearly expenditures of the government and how that money can be arranged from which sources are discussed in the public finance. Government has to spend a lot of money for overall development of the country in various sectors such as roads, bridge, government educational institutions, government hospital, law and order, defence, social infrastructure etc. Government collects money to bear these expenses from different sources like income tax, vat, gift tax, import custom, export custom, saving certificates, prize bond, treasury bill etc. In public finance, first the amount of expenditure is determined and then fund is collected according to the needs. The main objective of public finance is social welfare. Public finance is usually non-profitable. Expenditure may be greater than income in public finance. There exists a number of business organizations under government ownership, which may be less profitable also, for example: Chemical Industries under BCIC. Again,large amount of money is required for big projects like Bangabandhu Bridge. If total amount of money is to be collected from government budget, on many occasions financial crisis may occur to the government due to public expenditure for social and state security. For that reason, many times the government collects foreign loan from organizations like ADB (Asian Development Bank), World Bank, IDB (Islamic Development Bank) etc. But at the time of sanctioning the loan, such organizations impose different types of conditions which may not be consistent with the need of the country's development and image protection. Considering these conditions, government wants to collect fund from other sources. Now-a-days, big projects are financed worldwide and also in our country through public-private cooperation. This type of arrangement is called PPP (Public Private Partnership).

Pic: Bangabandhu Bridge

c) International Finance

In international finance, export and import sectors are discussed and analyzed. Bangladesh is mainly an import-oriented country. Every year huge amount of foodstuff, raw materials, machinery, medicine, petroleum etc. are imported from different countries. On the other hand, jute and jute products, readymade garments, agricultural products etc. are being exported. Trade deficiency of large amount occurs as the volume of import is greater than the volume of export. Remittance, sent by the foreign dwellers, plays a vital role to compensate this deficiency. International finance covers discussion on export and import sectors and the way of management to compensate the trade deficiency.

Individual Activity: The teacher will arrange an open discussion class on the topic "Steps necessary to raise foreign currency reserve" and give a homework on it for the next class.

d) Finance of Non-Profit Organization

In our society there are some institutions or organizations which are involved in the welfare of mankind, or providing services for the poor and distressed people. To run this type of business, money or products or services similar to money is required and it is necessary to utilize that money efficiently. In this connection, the role that finance plays is identification of the sources of finance or wealth similar to money and ensuring its proper utilization for the purpose of achieving the service-oriented objectives. For example, it could be mentioned: an orphanage is not a profit making institution, but it also needs money. These types of institutions collect money through different grants. This collected money is spent in various development activities for the orphans. So source identification and proper utilization of fund to achieve its motto is the main objective of finance of non-profit organization.

e) Business Finance

The most important type of finance is business finance. An organization formed with the purpose of earning profit through the risk of profit and loss is called a business organization. So, business finance is the process used to collect fund and invest it for business purposes. Business organizations are classified into three types:

Sole Proprietorship Business, Partnership Business and Joint Capital Business organizations. General features of these three types of organizations are fund collection and fund management. For fund collection, own capital and loan are used as sources. Business finance is the main theme of this lesson.

The most famous business organizations in Bangladesh are usually formed as sole proprietorship business and partnership business. Varieties of small and cottage industries, hotel & restaurant business, grocery shop, saloon, boutique shop etc. are of these kinds of business. In sole proprietorship business, if profit is earned, the owner enjoys it alone and if any loss occurs the owner's personal properties are also used to repair the loss.

In partnership business, the risk is distributed among all partners, and so the partners are to be prepared to use personal properties to bear the loss in business. In these types of businesses - sole proprietorship or partnership - sources of finance are owner's own capital, profit, loan from relatives, loan arranged on interest from bank or village money lenders. So, earning profit from investing one's own fund by proper utilization of money is the main objective of these types of business organizations.

The financial process of a joint stock company is different. Government approval is required to form such a company. Before giving approval, the government evaluates and analyses the minimum amount of capital, directors' identity, business objectives and various documents. After getting approval, a company divides its expected big amount of total capital into small portions of equal amount and sells these as shares in the share market. For example, 1 lac shares of 1000 taka may be sold to the public when the business has a capital of 100 million taka. As each share costs only 1000 taka, small investors of remote places of the country also can purchase shares. Shareholders are the owners of the company and if the company is profitable, they usually get dividend on a regular basis. Shareholders can convert their shares into cash by selling those in the share market like Dhaka Stock Exchange.

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Other than shares, a joint stock business can raise fund by taking loans from the public through selling bonds and debentures to them. In that case, the company has to pay interest on regular basis at some certain rate to the debenture holders. Because, they are not the owners of the company like the shareholders.

Group Activity: Through learning the examples of this text book, students will prepare a list of comparison among the financial process of non-profit organizations, business organizations and government organizations.

f) Bank and Financial Institution

In any country, economic activities usually revolve centering the banks and financial institutions. Sonali Bank, Janata Bank, Rupali Bank, Prime Bank, Shahjalal Islami Bank - this type of government and privately owned banks are profit-oriented organizations but their financial process is usually slightly different from business organizations. These banks collect small amounts of fund from the people, create deposit for different terms with this fund and provides fixed rate of interest to the depositors. Again, banks provide loans to the entrepreneurs in different businesses from this fund. Loans can also be taken for personal purposes. Banks impose interest on certain rate against these loans. But the rate at which a bank receives interest on granted loan is greater than the rate of interest the bank pays to the depositors. This difference of these two rates of interest is the profit of banks. In banking chapter, we will learn in details about these institutions. Beside commercial banks, some financial organizations also play an important role in country's economic activities. In Bangladesh context, some examples of these types of organizations are Investment Corporation of Bangladesh (ICB), Bangladesh House Building Finance Corporation, Bangladesh Agricultural Bank etc. These financial institutions play their own special roles in the development of different sectors of the economy of Bangladesh.

1.3 Importance of Business Finance

In the present competitive open market economy, every government, non-government and international business institution has to finance with great importance in a prelanned way. Through the use of a well-thought and effective financial management, the risks of the institutions are reduced and profits are increased. The following things make financial management more meaningful:

a) Capital Crisis of Business

Finance related ideas bear special importance in the situation of Bangladesh. As Bangladesh is a developing country, financial crisis is a regular incident for the business organizations. Due to this crisis, to run business smoothly has become very challenging. It could be said as an example, a business organization needs to purchase raw materials, but if it cannot purchase raw materials timely due to the financial crisis then the production process of the organization may be hampered. Finance related ideas help a business entrepreneur collect necessary amount of fund at the right time and utilize it properly in a planned way.

b) Backward Banking System

Besides, as our financial organizations are not well-organized like that of the advance countries, loan cannot be arranged within expected time after application. Sometimes, loan cannot be arranged as per required amount due to insufficiency of property as to be pledged as security for sanctioning the loan. So, to overcome this problem, business people have to collect fund at right time in a very well-planned way and also need profitable utilization of the fund with a right investment decision. Proper financial plan and management help him predict this type of problem and give idea about the process of overcoming such situation.

c) Less Educated Entrepreneur

The majority of the entrepreneurs in Bangladesh are less educated and are not able to conduct financial activities through a long term plan. So, many profitable business organizations cannot operate smoothly due to the financial crisis arisen from improper financial planning and at the end it faces loss instead of profit. But the only reason of this loss is financial ill-management. If a businessman has sufficient knowledge about financial management, he can easily collect necessary amount of fund at right time from a less expensive source and can earn enough profit by running his business through investing it in a suitable project.

d) Production-Oriented Investment and National Income

A successful investment plays a direct role to increase national income. By applying financial knowledge, a business person can choose the most profitable project from the alternatives by doing a cost-benefit analysis of the projects under consideration. This type of profitable investment is as much meaningful for the business as it is important also for the economic development of the whole country.

1.4 Principle of Business Finance

Business finance management means fund collection as per requirement, investment of this fund in short and long terms and the management of fund distribution. This management process follows some principles which are furnished below:

a) Liquidity vs. Profitability Principle

A grocer may keep all the cash money (liquid property) earned from daily sales for the purpose of buying raw materials and other related expenses, or he may keep with him some portion of this cash for buying raw materials and deposit the remaining mount in a bank account from which it is possible to get some amount of interest/ profit after a certain period. In this situation, the grocer has to decide on how much of the earned cash should be retained with him to meet the current needs. If the grocer keeps large amount of cash with him to meet the daily expenses, income from bank will be decreased. Again, if a large amount of cash is deposited in bank, the business may fall in financial crisis which may hamper the daily activities. So, business people have to perform financial management in such a way that can create balance between liquidity and investment. It means, as in one side business people need cash reserve to bear the daily expenses, thus in other side cash should be invested for making profit too. There is an inverse relationship between cash and liquidity. Huge cash decreases profitability, and again excess investment for the purpose of high profit causes cash crisis. To maintain a balance between liquidity and profitability is one of the principle of finance.

b) Competence Principle

Acquiring current asset by short term fund and fixed asset by long term fund is a principle of finance. Current asset is that money which is required to run the daily expenses of a business, like raw materials purchase, payment of labour wages etc. On the other hand, machinery purchase, building construction for the business etc. are fixed capital. As the amount of current capital is small, it also yields less; for this reason this type of capital should be collected from the short term source of finance. Types of sources like commercial banks, different financial institutions, investment banks, debenture holders provide long term loans. On the other hand, current capital should be managed from regular sales proceeds. High rate of interest has to be given to the loan providing institutions for collecting loan from the long term sources. So, if loan is collected from long term sources to bear the current expenses, then it appears that repayment of interest from the earned income becomes impossible.

c) Diversification and Risk Distribution Principle

Picture : Diversification of goods

In the case of fund investment, if business products or services are as much as possible diversified, the risk is distributed and reduced. Every business organization tries to earn profit centering an uncertain future. So business has to face a lot of risks. These risks may be created for many reasons, such as changes of economic, political or social scenario, arrival of new products in the market, natural calamity, sudden accident etc. It is not possible for the managers to control these uncertain situations or take preparations for them. But through following the principle of risk distribution, profit is possible to be earned in this uncertain market. If a business person does business only for a single product, profit earning becomes very risky. On the other hand, if the products of the business are different and diversified, the risk is distributed. It means, in any situation, if selling of a single product deteriorates, the decreased amount of profit can be compensated by the profit earned from the other products; and as a result, expected profit can be achieved in any situation. If a grocer sells both the Halal soap and the traditional soap, then customers of both kinds of soaps will arrive in his shop. If the grocer keeps only general or the traditional soaps, the customers of Halal soap will go to another shop to buy Halal soap and the total sales of the grocer will be decreased. Sales of some products rise or fall due to the differences of weather or season also. For example, demand of winter wears increases only in winter season. So, the sale of winter wears increases in that season. If a dress seller sells both summer and winter wears in his shop, then his profit earning will not be hampered for rise and fall of demand of the products in different seasons. If in a book stall only poetry book is sold and if in another shop poetry book, story book, religious book and different instructive book are sold, then it appears that maximum customers will prefer the second stall. Because they can purchase different types of necessary books from a single shop at a time. This principle of risk distribution through diversification can be applied in fund collection. In the case of fund collection, priority is given on fund collection from different sources.

1.5 Functions of Financial Manager

Financial manager deals with the two types of decisions:

1. **Income or Financing Decision**
2. **Expenditure or Investment Decision**

Income or Financing Decision

Income decision mainly means the process of fund collection. The scope of this decision covers selection of the alternative sources of fund and taking financial plans by analyzing the advantages and disadvantages of these sources. Generally, to bear the current expenses, fund is collected from short term sources; and to bear the fixed expenses, fund is collected from long term sources. For the purpose of fund collection, it is collected through own capital and arranging loan from different sources. Besides, large companies may gather capital through selling shares. Shareholders are the real owners of a company. The portion of capital which an organization collects through loan increases the liability of the organization again ownership right is established on the basis of the amount of capital collected through the owners' fund. Thus, an institution becomes successful to create a balance between the liability of loan and the rights of the owners through a right finance decision.

Expenditure or Investment Decision

Machine purchasing decision is an investment decision for a tailoring shop. In the case of a grocery shop, decision for furniture purchasing or refrigerator purchasing is also an investment decision. For a production organization, production machines purchase or factory construction is also this type of decision. Through this decision a plan of expected inflow and outflow of fund has to be calculated. For example, a production organization decides to buy machines only when the selling of the machine-made products are greater than before if thus profitability and inflow of fund are increased and if the total inflow of fund is greater than the purchase price of the machine.

That means if it seems that the machines can be utilized for 10 years, then for the purpose of investment decision, comparison has to be made with 10 years inflow of fund from sale proceeds for adding the new machines and the purchase price of these machines. So, it is possible to find out 10 years cash flow from selling only by considering the product price in 10 years and the volume of sales. Production and other expenses are deducted from the sales earnings to measure the profit from the cash flow.

The investment decision is very tough for an organization because to measure the amount of selling in future and determining selling price is a very difficult task.

Other Decisions

Above two decisions are the most important for the financial managers. Besides, financial managers have to take some other more decisions, such as:

a) Purchase of how much amount of raw materials is suitable and from which sources this fund can be collected – this type of decision is called current investment decision.
b) How much amount of cash reserve should be kept for daily expenses is another important decision too.
c) Dues payment for the sources of fund is another decision.

If fund is collected through bank loan and other loans like bond, debenture etc., then payment of certain amount of interest at the right time is an important responsibility for the financial manager. In the same way, if fund is collected through selling of shares, then earning profit at the expected rate and distributing dividend are other important things to be considered by the financial manager.

Open Discussion: Finance and investment – which is the most important decision of the two?

1.6 Evolution of Finance

After the Industrial Revolution of 17th century, production technique becomes more complex and the production process attains its excellence through specialized and divided processes. To sustain in the market competition, finance related concept and its use become essential. With the expansion of Accounting in 18th century, Finance was involved mainly in the evaluation and analysis of the financial statements. With the development of the classical trend of micro economics, finance was also involved in the own and specialized economics of the business at the end of 19th century. The trends of this financial evolution give us the meaningful idea about the nature and scope of finance. Traditionally, financial managers' main responsibilities were accounts maintenance and making a future plan of action by analyzing it. Besides, report preparation to reflect actual condition of the business and liquid fund management to build business capacity of payment of the dues in right time are also added with the evolutionary process of finance. But with the expansion of civilization, the expansion of organizations and technological development have changed the responsibilities of financial managers. The evolution of finance that happened

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in the last century in USA, the main exercising field of finance, is later known as the trend of Evolution of Finance throughout the whole world. According to that, the stages of financial evolution can be presented in the following way:

a) Pre-1930 Decade: This time a trend of unification began among the companies of the USA. Financial managers had to identify a framework about which company should be unified with which one, by examining the financial statements of the companies. They took the responsibility of huge amount of financing and preparing financial statements for this unification.

Group Presentation: Make a comparative analysis between the process of activities of managers of the day and those of previous time.

b) 1930's: Tendency of unification did not get much success in USA. Many of the companies unified in the past decade turned into bankrupt in the next decade. Moreover, high depression started in USA. Many profitable companies also fell in a great loss. At that situation, how these loosing companies can be reorganized to protect them from bankruptcy was a special responsibility of the financial managers. From that time, fund collection through share selling started.

c) 1940's: Necessity of liquidity was the main concentration at this time. Finance did that responsibility by ensuring well-planned cash flow with making a budget of cash flow.

e) 1950s: In this decade, finance was involved in evaluating the most suitable investment project by using different mathematical analyses. Main activity of finance then turned to profit maximization by increasing sales and decreasing expenditures through suitable long term investments based on long acting forecasting. This trend is considered as the traditional trend of finance.

f) 1960's: Modem finance started its journey from this time. Finance started giving priority in capital market. Shareholders are the owners of a company, so maximization of the shareholders' property or the market price of shares became the main objective of finance of this time. To achieve this objective, different activities relating to financial analysis started. Concept of risk in finance makes us understand that risk increases with the increase of profit. So profit increase may not be desirable all the time.

g) 1970's: Era of computerized activities started in this decade. This not only changed the production techniques but also brought changes in business finance. Finance is now Mathematics-based. Most of the financial decisions are mainly based on complex mathematical calculations, and the tendency of making these calculations very effectively in computer got special popularity.

For example, the concept of risk is now measured and managed more correctly. Traditional trends of capital structure are also more complex and mathematical. Among the scholars who deserve mentioning for enriching business finance with different theoretical analysis were Harry Markoiz, Murton Miller, Modigliani. After that, in 1990's these scholars got Nobel Prize as the reward of their contribution in the development of finance through mathematical analyses.

h) 1980's: For expansion of business and sustaining in the competitive market system, finance evolves in a new outlook by changing its previous roles. Efficient distribution of capital among alternative projects of the company and calculation & analysis of income of these projects were the main activity of finance.

i) 1990's and Beginning of Modern Finance: World Trade Organization revealed itself in this decade. Barriers of export and import started to decrease worldwide. This time finance achieved internationality. In one hand, investment decisions of finance considers where in the world production and selling of which product could achieve profit; on the other hand, the scope of finance also includes in its consideration which capital market of the world is of what type and from which sources fund collection will be profitable. As a result, finance is an applied field of solution in the financial management of a business organization which has developed in combination with accountancy, economics and some other financial subjects.

Exercise

Multiple Choice Questions:

1. What is the relationship between cash and profit?

a) Vertical
b) Opposite
c) Downward
d) Proportional

2. Business finance management means –

i) Supply of sufficient money
ii) Capital utilization for few months
iii) Financial allocation related decision

Which one is correct?

a) i and ii
b) i and iii
c) ii and iii
d) i, ii and iii

Short Questions:

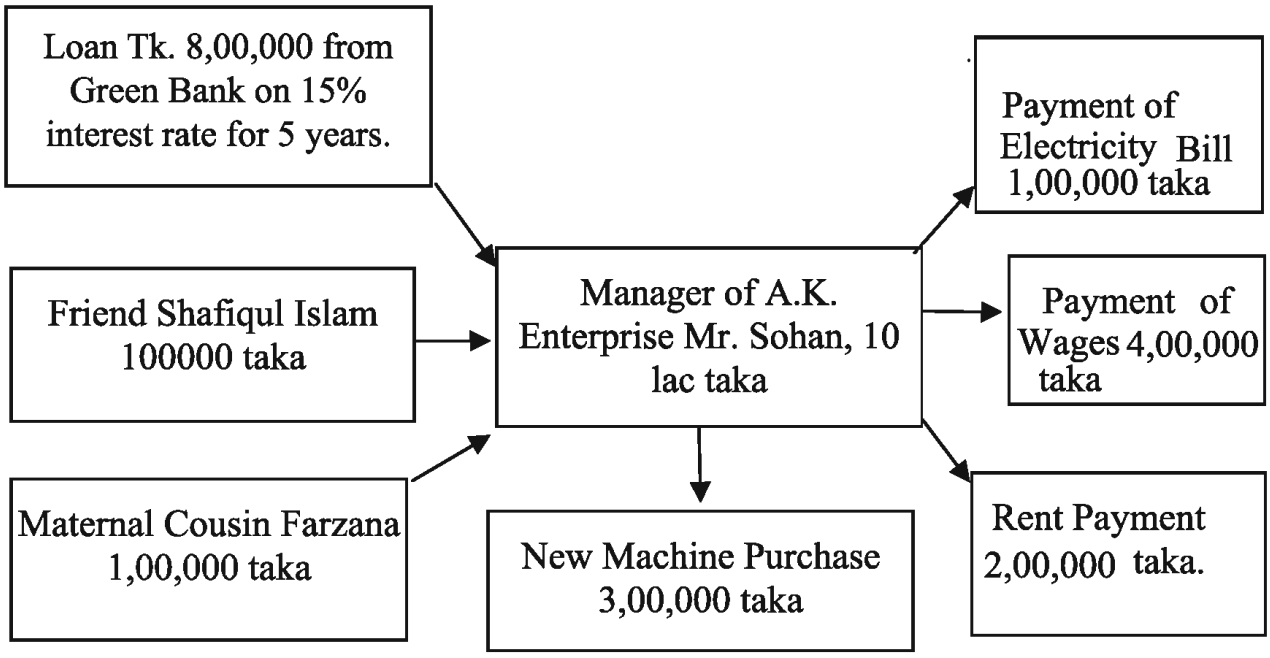
1. What is paid to an investor on regular basis against the shares?

2. What is the main objective of public finance?

3. In open market management how does a business firm have to finance with great importance?

Creative Questions:

1.


Loan Tk. 8,00,000 from Green Bank on 15% interest rate for 5 years.
Friend Shafiqul Islam 100000 taka
Maternal Cousin Farzana 1,00,000 taka
Manager of A.K. Enterprise Mr. Sohan, 10 lac taka
New Machine Purchase 3,00,000 taka
Payment of Electricity Bill 1,00,000 taka
Payment of Wages 4,00,000 taka
Rent Payment 2,00,000 taka.

In Financial Statement 2012 it is found that the firm is facing loss.

a. If import is higher than the export, what deficiency is created?

b. Why does the government has to spend a lot for the country?

c. What can be termed the overall activities of the Managing Director of A. K. Enterprise? Describe.

d. By following which principle do you think Mr. Sohan would have faced no loss?

2.

	Firm A	Firm B
Product -	Mini Pack Shampoo	Bottled Shampoo, Mini Pack Shampoo , Herbal Shampoo
He who enjoys Profit/Loss -	Only the Owner	Distributed among all Owners

a. After just which step production techniques become critical?

b. What type of knowledge should a business person hold to be capable of managing necessary amount of finance in a planned way at a low cost?

c. How can Firm A do finance? Explain.

d. Between the two business institutions mentioned above, which one you think is less risky? Analyze.

Chapter Two

Sources of Finance

Finance means fund collection, its management and distribution. In this chapter, we will learn about the concept of the sources of finance for doing the fund collection activity efficiently. Different sources of finance have different features. For these different features, fund should be collected from different sources suitable for different situations of the business. For example, to purchase a fixed asset fund should be collected through share selling. Again, to meet the daily needs such as, raw materials purchase, credit purchasing can be used or short term bank loan can be utilized.

After reading this chapter we shall be able to:

- identify the sources of finance.
- analyse the classification of sources of finance.
- have a comparative discussion of the advantages and disadvantages of different term finances.
- identify the sources of short term finance.
- identify the sources of mid-term finance.
- identify the sources of long term finance.

2.0 Introduction

To get the fund required for the purpose of starting any business or to conduct the daily activities of business, selection of the sources of finance is one of the important decisions in financial management. Because different sources have different costs of capital and the sources of different terms have different advantages and disadvantages. An institution collects fund by analyzing different sources to select that mixture of sources which will provide maximum benefit and minimum cost. Main objective of investment is profit earning. It is to be mentioned that when the total income of a business firm is higher than the total expenditure, it is generally called total profit. We can get net profit by subracting the cost of capital and tax from total profit. So, the cost of capital should be reduced to maximize the profit of the business.

2.1 Concept of the different sources of finance

Business finance means supplying fund required for running a business. Mr. Rahman is the owner of a tailoring shop. He purchased some machines at the beginning of the business. Generally, a business person tries to collect fund from his own savings for the purpose of machines purchase related fixed investment. Because he can use this money for any duration. But if he sees after calculations that his own savings is not sufficient to purchase the machines, he can collect fund through loan at a certain rate of interest from different commercial banks like Jananta Bank, Rupali Bank or other loan providing financial institutions. He usually collects this type of loan for a fixed term. Fund can also be collected from bank and other non-institutional sources against collateral of fixed property of business like building, factory and current property like raw materials, salable products etc. Besides, Mr. Rahman may meet the needs of finance by reinvesting the profit earned by him without withdrawing this it from the business. If Mr. Rahman feels cash crisis to meet the current needs like maintenance of machineries, payment of house rent, payment of labour wages, payment of electricity bill etc. During the time when the business is in operation, he can receive advance from the buyers against future selling. Moreover, purchase on credit is another source of finance. Sometimes heavy machinery, big equipment, building, land, etc. can be rented from different organizations for a fixed period instead of purchasing and thus the business person can remain protected from the risk of huge investment at a time. Big business organizations like Kohinoor Chemicals, Beximco Pharmaceuticals, Square Textiles, Singer Bangladesh, arrange fund by selling shares and debentures. Fund collected from these types of sources can be used for long terms.

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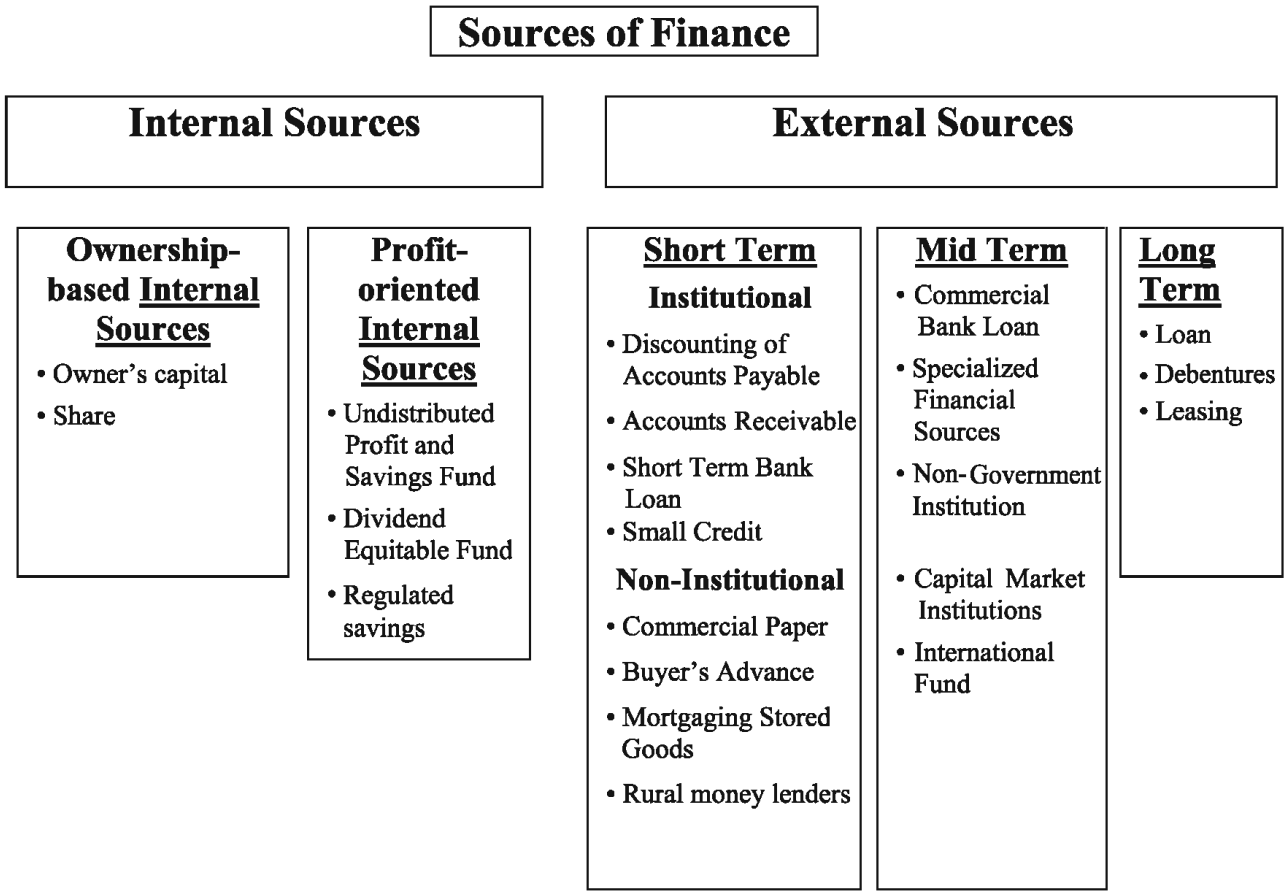
Thus, due to the differences of forms, nature and objectives of business, an organization collects fund from different sources. In every organization there are two separate sources of finance. One is the owner and the other is the creditor. Fund provided by the owner is called internal sources of finance and that provided by the creditor is called external sources of finance. Most of the organizations usually utilize both these two sources.

In table no 2.1, classifications of these two sources of finance have been shown:

2.2 Internal Sources of Finance

Fund which the owner of a business invests through his saved profit or unutilized profit is called the internal sources of finance. Internal sources of finance can be divided into two types: a) Ownership-based sources, b) Profit-based sources. Now we will know about the different kinds of these two sources of finance.



Picture 2.1: Classification of the sources of finance

2.2.1 Ownership Based Classifications of Internal Sources

Nature of internal fund is different for different kinds of business organizations. We know, based on ownership organizations may be of Sole Proprietorship, Partnership or Joint Stock Company. In sole proprietorship business, sources of

internal fund are owner's own savings or it may be any kind of factors of production measurable in money, such as: land, labor, capital and organization which are used in production. If the organization is a partnership business, fund invested by the partners is considered as the owner's capital. On the contrary, if the organization is a company, fund collected through shares selling is considered as internal source of finance. Joint stock companies are of two types: Public Ltd. Company and Private Ltd. Company. Number of initiators in private ltd. company is 2 to 50 and in public ltd. company it is minimum 7 and the maximum number may be any number limited by the shares. Both public and private ltd. companies collect capital through share selling. But a private ltd. company sells shares among the specified owners instead of selling them in the share market. An important source of capital collection for a public ltd. company is share selling. We will know in details about it later in Chapter VII.

2.2.2 Profit-oriented Classification of Internal Sources of Finance

A business institution earns money through producing goods and providing services. The money which remains left after deducting the production cost, selling expenses, etc. from this earnings is the profit of the business. The remaining portion of profit after deducting the interest of loan and the tax payable to the government can be used in various ways as a source of fund and these are discussed below. As in the case of loan, interest payment is compulsory but in the case of internal financing almost nothing is to be done as compulsory; so, the risk of repayment related inability is decreased. Now, we will be introduced with some profit oriented sources of finance.

a) Undistributed Profit and Savings Fund

The portion of profit which is invested in the business instead of distributing among the shareholders is called undistributed profit. If this undistributed profit is kept in separate fund for the purpose of business expansion in future, it is called savings fund. Besides, this type of fund may also be created to overcome financial disasters in future.

b) Dividend Equitable Fund

Shareholders of a company usually get dividend from the company on a regular basis. Goodwill of the company implies with giving this dividend. If in any year business earns less amount of profit, payment of dividend is not possible. But inability of dividend payment may deteriorate the business image in the market; so, in the year when the business earns huge profit, the

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company keeps aside small portion from the net profit as dividend equitable fund which can be used to pay the dividend also in the year when business earns insufficient profit. Thus, this fund gives the business ability to pay dividend on regular basis.

2.3 External Sources of Fund

External fund means external sources from which fund can be collected such as, fund collected by taking a loan from bank. It is a popular source of finance. Bank loan has some features. **First:** Bank loan has a fixed term, within this term loan is to be utilized and the principal amount with interest has to be paid back to the bank. **Second:** Rate of interest remains the same, for the long period of its term no change is made. **Third:** Repayment of interest and installment of loan regularly and repaying the principal amount within the term is compulsory for the business. These dues have to be repaid even though the business is not profitable. Besides, fund can also be collected through selling debentures or bonds to the bank. Selling of preference shares is another source of external financing.

External sources of financing are very popular. Two reasons of these are identifiable:

a) If business is financed externally through loan, tax is imposed on the profit left after deducting the interest of loan. Thus less amount of tax can be paid.

b) In the case of small business, many times internal financing becomes comparatively less in amount; as a result, external sources act as the main sources of finance.

But one problem of external sources is the compulsory payment of interest. It was previously said that whether profit is earned or not, business is bound to pay the imposed interest as per schedule. This problem doesn't create if internal sources are used. On the basis of terms, external sources can be divided into three types: a) Short term, b) Mid-term and c) Long term. Now we will get ideas of these three types of sources.

2.3.1 Short Term Sources of External Finance

Short term means less than one year. Most of the finances of an organization are usually collected from short term sources which are repaid within a year. In the case of short term financing, an organization enjoys some benefits,

For example:

First: Cost of capital from the short term sources may be comparatively both the highest and the lowest. For example, loan collected from the commercial bank is required to pay high rate of interest in short term. Again, different interest free sources like purchase on credit or wages kept due, a business organization can create fund for short term, which has no cost of capital. (We will learn in details about the cost of capital in the following chapters.)

Second: The process of short term capital exchanges is the fastest and simple process. On the other hand, the exchange of mid-term and long term financing requires to expend huge time and to follow long process.

Third: The business institutions whose products demand changes very swiftly within one year cannot make long term plan of production and financing. For example, due to the rapid change of demand for the fashion house's products, these types of business make plan for short term production, and thus require small amount of money at a time. Short term sources of financing are suitable for these types of businesses.

Now we will discuss the short term sources of finance. The sources of finance of this term can be divided into two types. We will discuss below first the institutional sources of short term finance and then non-institutional sources of short term finance.

1. Institutional Sources of Short Term Financing

a) Discounting Bills Receivable

When products are purchased on credit, the buying firm promises to the selling firm through signing a document to pay specified amount of money after expiry of the certain period (usually 3 months). This type of document is called the Bill of Exchange. This bill is receivable for the selling firm. So, selling firm can collect cash by exchanging or discounting this bill in a commercial bank. Let us assume, on January, a buyer purchases goods of 500 taka on credit and agreed through signing the Bill of Exchange that he would be bound to pay 500 taka to the selling firm on March 30. In this condition, if the seller needs money before March 30, he can sell this bill to a bank before the expiry of the period but he has to receive less than 500 taka, for example, with a discount rate of 3%, after discounting he will receive 485 taka.

b) Bills Payable

In above example, Bill of Exchange is a bill receivable from the perspective of the seller, which is a bill payable to the buyers and is one of the sources of

short term finance. When a business institution purchases raw materials, production materials etc. on credit, finance inflows for a short time in the business. Because if business couldn't get the opportunity of credit purchasing, finance would be required to buy on cash payment; hence if loan was collected from the bank, interest would have to be paid.

c) Short Term Bank Loan

In the case of short term finance, unsecured bank loan is one of the popular sources of finance. This kind of loan may be of different types. For example, in the case of short term bank loan, usually interest with principal amount has to be repaid at a time after a specified time period. Many times, bank tries to collect full portion or part of the sanctioned loan before the specified time period and for this purpose bank gives discount on the total amount receivable as an incentive of earlier payment. For example, if a creditor repays 6000 taka before the expiry of the credit term of 6 months, he can give 2% less than the total amount, that means, the creditor can repay 5880 taka.

Besides, if the creditor agrees to repay on demand instead of agreeing on a fixed term, this type of loan is called "Demand Loan". The institutions which have alternative sources of finance can use this source at a low cost of capital.

d) Bank Overdraft

Bank Overdraft is another type of short term bank loan. Every institution usually realizes its receivables and repays its payables through current account. This type of bank account mainly gives to its account holders the opportunity of withdrawing more than the amount of savings in this account; however, the bank restricts the maximum amount of overdraft. Generally, finance collection from this type of source is a well-known system for those institutions where sales decrease for some time of a year. For example, it could be mentioned that an ice cream factory spends money throughout the year for production, warehousing, management etc. but maximum amount of ice cream is sold in Summer season; so for the purpose of financing in other time of the year this type of source can be used. Generally, in the case of other types of loan, interest has to be paid till the full repayment of loan, but interest for such types of loan has to be paid only when this loan is being used. However, the rate of interest of this type of loan is higher than the other types of loan and it is repayable on demand.

e) Small Credit

This type of loan is generally provided to meet the demand of current asset for agriculture based and small & cottage industry, such as, management of a small industry, purchasing of agriculture based materials, management of a firm etc. Grameen Bank, Youth Development Bank, Co-operative Banks are used to provide such kind of bank. This kind of loan is given step by step on the achievement of goal.

2. Non-Institutional Source of Short Term Loan

a) Commercial Papers

A business organization sells Commercial Paper through promising to pay back the principal amount with interest after expiry of the certain period. At that time the company's goodwill acts as a security to the purchaser. Usually, those persons who have some excess money left as unutilized for the time being purchase commercial papers as an alternative of investment in shares. Generally, well known person, commercial bank, insurance company etc. can arrange finance for a short time by selling commercial papers.

b) Advance from Purchaser

In many cases, trustful and permanent customers pay as advance to the producing or selling firm the full amount or part of their total purchase, and as a result, this acts as a source of finance to the seller for the time being.

c) Inventory Financing

For the purpose of short term financing, warehouse asset can be used. If any business firm uses its inventory as security of loan received from a well known person or organization, it is called the inventory financing.

d) Village Moneylenders

Since long days ago, rich people of the villages have been providing short term loans to the poor people. In this case, if the period of loan repayment is expired, the debtor has to pay high rate of interest. If the person fails to pay back the loan with interest within specified period, the moneylenders took the possession of his (debtor's) tangible and intangible property. Village moneylenders count to impose interest on this loan on daily basis, weekly basis and monthly basis.

2.4 Mid Term Financing

This type of loan extends for 1 to 5 years. A business firm uses this fund to meet the demand of long term needs of the current capital. Cost of capital or interest

rate of this fund is higher than that of the short term sources of finance and less than that of the long term sources of finance. Sources of this type of loan according to their different features are discussed below:

a) Commercial Bank Loan

Loans which the commercial banks provide for mid-terms are usually given against security. Current capital or even fixed asset can be used as security for obtaining this type of loan. Huge amount of loan payment (at a time) may be a risky job for a commercial bank. So, when a commercial bank pays huge amount of loan, it creates syndication of a number of commercial banks together to bear in group the high risk of loan payment. Before sanctioning the loan, a commercial bank finalizes its interest rate by analyzing the interest rate fixed by Bangladesh Bank and the demand of the loan.

b) Specialized Financial Institution

Generally, some financial institutions are established under the government ownership which are engaged in the development of the country's specialized sectors. These institutions provide term loan on favorable conditions to the relevant sectors. Industrial Bank, Agriculture Bank, Bangladesh Small and Cottage Industry etc. are examples of such institutions.

c) Non-Government Institutions

There are different kinds of NGOs working in Bangladesh which provide mid-term loan to the business institutions. For example, Midas, BRAC, Grameen Bank etc. are doing business as an NGO by getting legal entity. Besides providing fund, these institutions also provide consultancy, training, support in efficiency building activities etc. to the business organizations.

d) Capital Market Institutions

Different types of capital institutions such as insurance company, investment bank, finance mediatory institutions (underwriters) also provide mid-term loans.

2.5 Long Term Financing

Long term financing extends from 5 years to the maximum of any duration. Long term financing has some distinctive features. We will now discuss these features. First feature of long term finance is the amount is bigger than the mid or short term funds. So this fund is usually used to acquire fixed asset like land, building, equipment etc. Another feature is related with the repayment schedule. If long term fund is collected through loan, it has to repay as per contracted

payment schedule. Again if long term fund is collected through selling shares, this fund is considered as owner's capital. So this liability need not be repaid till the business dissolution. In sole proprietorship and partnership businesses, the owner's capital too can usually be used for indefinite long period. The tax-related feature is that share dividend is taxable but interest of debenture is non-taxable. That is why the cost incurred from share selling is higher than the finance through long term loan. Now we will discuss the sources of long term fund.

a) Loan

Generally, any organization takes long term loans against security to bear the expenses of expensive equipments, machineries, buildings, land purchase etc. Before sanctioning long term loans, banks analyze different information like income of the company, goodwill, amount of fixed asset, previous events of taking loan and loan repayment trends etc. Long term loan is collected for fixed investments, such as, expansion of scope of the business, factory construction, building construction, purchasing heavy equipments etc. Before taking these investment decisions, the concerned business organization makes an estimate which is known as capital budgeting. Through this process future profit or loss is measured by adopting different procedures. If the financing organization is satisfied by this estimate of profit and loss, only then loan is sanctioned.

b) Debenture

In the case of debenture, fund is collected through selling the large amount of loan after dividing into small fractions. It is an alternative to share. But debenture holders are bound to pay fixed rate of interest which is kept mentioned in debenture. Loan is taken for any long term starting from 5 years. Whether profit is earned or not, the business is bound to repay the interest of the lenders. Main advantage of financing through selling debenture is the long term existence of fixed rate of interest; and as interest rate is predetermined, financial managers can make an effective plan of financing.

c) Leasing

Leasing is an amazing method of long term financing. If an organization needs expensive machine, equipments, transport etc., it has to purchase those things directly or instead of purchasing directly the organization can use those things through a lease contract from a leasing company. But in that case, company does not get the ownership of the machine.

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Leasing company is the owner of the machine. To enter into a leasing contract, the organization has to pay rent (like interest) to the leasing company at a fixed rate and thus it can get the opportunity of using the leased properties. Let us assume that a business firm takes a photocopy machine as lease from a leasing company for 3 years by pledging to pay a fixed amount of rent and returns it to the leasing company after the expiry of the period. That means on a leasing contract, ownership of the property is retained to the leasing company. As an advantage of leasing, the organization needs not to take long term loan or to use savings fund. For this reason, leasing is a source of long term financing. Newly established companies or the small companies whose capital for investment is not sufficient also can use expensive company provides repair and maintenance services for the lease properties.

2.6 International Monetary Fund (IMF):

It is an International Economic Organization. It is initiated as the result of proposal of Bretton Woods Conference of USA in 1945. At present the number of members of the Organization is 189 (New member Republic of Nauru). It helps reconstruct the economy of different countries. Its headquarters is in Washington DC.

2.7 Considerable Factors for Selecting the Sources

Organizations collect funds from different sources to meet the need for money. For selecting the sources, we need to analyze advantages and disadvantages of different sources and take into considerations the cost of fund collection, nature of the organization, type and purpose of need of the fund, etc. Making a right mix of the sources of fund is an important decision of the finance management. Things that should be taken into consideration for selecting right source of fund are mainly:

a) Type of Business

In the case of sole proprietorship and partnership businesses, fund is collected usually through own savings, profit of business, or loans taken from relatives. In the case of large scale purchase, leasing is also a good source of finance. In the case of public limited companies, instead of these most funds are collected through issuing shares and debentures. In picture 2.1 a structure of the sources of finance mix based on different formations and purposes of the business has been furnished. In the first line of the picture, we see the source is fit for sole proprietorship and partnership business. Hereafter, it is found that undistributed profit, overdraft, short term loan and leasing are acceptable for all kinds of

organizations. But long term loan and share issuing are applicable only for companies.

	Sole Proprietorship Business	Partnership Business	Private Limited Company	Public Limited Company
Savings				
Undistributed Profit				
Overdraft				
Short Term Loan				
Leasing				
Long Term Loan/Security				
Share Issue				

Picture 2.1: Selecting Sources of Finance based on the Types of Business Organizations

b) Insufficiency of Security Property

Usually in the case of a new business organization, getting loan against fixed asset as security is not possible. Because at the beginning situation, the business has no fixed asset which could be used as security. Besides, the selling of share and debenture is also a bit uncertain for the new companies. In such a situation, if long term fund is needed, it is more logical to collect that through leasing.

c) Types of the Needs of Finance

If a company wants to buy expensive equipments, machineries, land, buildings, etc. use of long term sources like issuing share and debenture, taking lease, taking loan against security etc. are effective. If there is shortage of fund to bear the expenditure of raw material purchase, paying wages, paying house rent etc., use of short term sources like credit purchase, receivable bill security, bank overdraft can be accepted.

d) Cost of Sources of Fund

Fund can be collected from many sources. But an organization takes loan from that source where the expenses are the least. For selecting a suitable source, the organization measures and analyses comparative advantages and disadvantages between the earned income from the use of the fund and the cost of fund collection. Suppose that a company wants to buy a factory to run its activities. So, it issues shares for fund collection. But for collecting fund through shares the company has to pay dividend to the shareholders, which is a cost of this source. Besides, the company can mortgage its property for buying the new factory. If through such mortgage the company takes loan for long term, it has to pay installments with interest to the lending organization until the loan is fully realized. As a result, this source is also expensive. The company can accept that source of the two where the cost is least for it. Or, it can collect fund by making a profitable mix of the two sources. Dividend of share is taxable, but interest of debenture is non taxable. Therefore, to reduce the load of tax, taking loan on interest from bank or other sources is better than collecting fund from internal sources. In many cases, more advantages are got and cost is also reduced by using a mix sources instead of using a single source.

e) Risk of Sources of Fund

If a company takes loan against security, it has to keep properties as security to the lending organization. If it is not possible for the company to repay the loan within the specified period, it is bound to repay the money by selling property kept as security. As a result, in selecting the suitable source, related risks of the concerned source have to be considered.

Exercise

Multiple Choice Questions:

1. Which is the source of mid-term finance?

a. Micro Credit
b. Specialized Financial Institution
c. Collect Advances from Purchasers
d. Discounting the Bills Receivable

2. Factors that are considered to solve the financial problems of business organizations are -

i) Cost of Capital Supply

ii) Importance and Objectives of capital

iii) Different types of benefits

Which one of the following is correct?

a) i and ii
b) i and iii
c) ii and iii
d) i, ii and iii

Read the following Stimulant and answer the questions 3 and 4

Mr. Bazlur, a businessman of garment industry, has rented some necessary machines and equipments for 7 years. Within a very short time he became very famous in the business field.

3. What sources Mr. Bazlur has taken support from for fund collection?

a. Advances from purchasers
b. Leasing
c. Debenture
d. Commercial Paper

4. What of the following Mr. Bazlur has given importance for in fund collection?

a. Utilizing savings fund

b. Need of long term loan collection

c. Undistributed dividend loan

d. Paying compulsory interest.

Short Questions:

1. Which is the most speedy and simple process of money transaction?
2. Explain what kind of finance it is which is collected for 1 to 5 years.

Creative Questions:

1. For a long time, Dinonath Chakrabati had been involved in business of Jamdani Saree and to save fund, he sometimes used to collect money from various sources for a short time. But presently he has dicided to start a Handloom factory by expanding the business. He is also working to arrange an old factory in Narayanganj with 100 machines for 10 years.
   a. How many classes may the sources of finance be divided into?
   b. Explain the role of savings fund in business expansion?
   c. By using what kind of fund Dinonath Chakrabati is presently trying to solve financial problems?
   d. Do you think for business expansion Dinonath Chakrabati has to search other sources also as financial support? Give logics that support your answer.

2. After promoted to Class IX, Shafiq couldn't continue his studies. Later, without getting any job, he was motivated to do a business by taking training on leather industry. To solve his financial problem, he approaches to the government financial institutions and local non-government sources.
   a. What is the most speedy and simple process of money transaction?
   b. Which finance is considered as fund collected for 1 to 5 years term? Explain.
   c. What kind of organization is that which supported Mr. Shafiq? Describe.
   d. What role private organizations can play to make youth society like Shafiq selfdependent? Discuss.

Chapter Three

Time Value of Money

The concept of Time Value of Money is the root of most financial decisions. Today's Tk. 100.00 and Tk. 100.00 after 10 years will not carry the same value. This concept of time value is also necessary in our daily life. If we know by what rate he is calculating the interest of the loan taken from the money lender, we will be able to evaluate among different sources and we can compare different sources before taking any financial decision. This way we can finance from most suitable sources. Loan taken from the bank, requires paying installment as per payment schedule. How this payment schedule is measured and how this kind of mathematical problem is solved will be covered in this chapter. To solve these mathematical problems, scientific calculator will be needed.

Picture: Calculator

After reading this chapter we shall be able to :

- explain the concept of time value of money.
- identify the relationship between present value and future value.
- exercise the method of calculating EAR (Effective Annual Rate)
- analyze the method of calculating the loan installment.
- identify the method of calculating the Future Value of Saving Scheme.

3.1 Concept of Time Value:

From the perpective of finance, value of money changes with the changes of time. That means Tk. 100.00 of that time and Tk. 100.00 after 5 years do not have same value. Tk. 100.00 of present time is more valuable. It is the concept of time value. Main reason of time value is interest rate. Let's assume, you have Tk. 100.00 due to your friend. He told that he would make payment after 1 year instead of paying now. Time Value of money says, Tk. 100.00 of this time is not same as Tk. 100.00 after one year. Suppose, interest rate is 10%, so if you deposit Tk. 100.00 in Sonali Bank then bank will give you Tk. 110.00 after one year. Thus today's Tk. 100.00 and Tk. 110.00 after one year bear same value.

3.2 Importance of Time Value of Money:

In business, inflow and outflow are related with every decision. For the purpose of taking right decision, present value and future Value of inflow and outflow are needed to be calculated on term basis. So, considering the importance of the "Time Value of Money" it can be said that -

(a) Opportunity Cost: If money is invested in any project then opportunity of investment in other project has to be missed. In finance, it is called "Opportunity Cost." This opportunity cost can be calculated by the application of equations of "Time Value of Money" . As an example: In your locality land value becomes double in 10 years. On the contrary, let assume, interest rate is 8% in sonali bank Saving Account. If land is purchased then money cannot be deposited in the Bank. So, in that case, opportunity cost of land purchase is 8%. By using equation-I of that chapter we can take a decision whether we should purchase land or should deposit in bank. Concerning this matter, most easy and almost perfect method is known as "Rule -72". If money doubles, then 72 are divided by the term or duration. By this which interest rate is found, if this rate is divided by 72 we will get duration. As land value becomes double then interest rate is 72/10 or 7.2%. So,depositing money Sonali Bank instead of purchasing the land is logical

(b) Project Evaluation:

To evaluate the long term project, comparison has to make between the present cost of project and expected income or inflow of money from investment. From this chapter we have known that present value of money and future value of money is not same. So without returning expected income of the project into a present value, we cannot take any long term decision. Later we will explore details about this decision in Capital Budgeting chapter.

(c) Lending decision:

Before taking loan from Bank or Financial Institution installment ability should by measured at first. On the basis of the loan repayment schedule, amount of installment differs. For example, Loan Installment of 5 years term loan and 8 years term loan will not be same. Again term may be yearly, monthly etc. In this situation installment amount will be different too. We can find out term of different installment of different amount of loan and by this we can take decision about how long of the term of the loan, which way of installment repayment, receiving of how much loan will be suitable for business. Due to the lack of this planning, most of the company is declared bankrupt because before taking any loan, one has to verify the ability to repay the loan. It should be remember that loan repayment is obligation for any business and failure of this causes bankruptcy.

3.3 Equations of Time Value of Money:

In the above example we have known that if interest rate is 10% then Tk 100.00 of this time is as same as Tk 110.00 in the next year and Tk 121.00 after 2 years. This Tk 100.00 is called present value and Tk 110.00 and Tk 121.00 are called future value.

3.3.1 Future Value and Annual Compounding

If present value is known, future value can be found out by using the equation-1 below: Equation-1: Future Value (FV) = Present Value (1+ Interest Rate) duration

Here FV is Future Value.

1 year after Future Value of Today's TK. 100 $= 100\ (1+0.10)^1 = 100 \times 1.10 =$ TK. 110

2 year after Future Value of Today's TK. 100 $= 100\ (1+0.10)^2 = 100 \times 1.21 =$ TK. 121

The procedure which has been used in above example to measure future value is called compounding method. Here, it may be mentioned that in the Tk 110.00 future value after 1 year are the principal amount of Tk 100.00 and Tk 10 as interest at 10% rate. In the same manner, if the interest in the 2nd year is 10, future value should be Tk 120.00 but the future value for 2nd year is Tk 121.00. This is because at the beginning of 2nd year, the principal amount is Tk 110.00 and this makes the interest at 10% rate in 2nd year to Tk 11.00. Thus the first year's principal amount with interest is considered as a second year's principal amount and charging

interest on this amount is the compounding method. In compounding method, future values is measured by charging interest rate on every year's principal amount with interest. Therefore, the interest rate which is being charged on principal amount with interest is called compound interest. But in case of simple interest rate, yearly interest is calculated by charging interest rate only on principal amount.

3.3.2 Present Value and Yearly Discounting

If future value is known, then according to Equation: 2, present value can be calculated. The element by which equation: 1 was multiplied, here the same element is used to divide by. It is called discounting method.

Equation No.2: Present Value $= \frac{\text{Future Value}}{(1+i)\ \text{duration}}$

Example: Present Value of Tk.100 after 1year. $= \frac{100}{(1+10)^1} = \frac{100}{(1+.10)^1} =$ Tk 90.91

In above example discounting method has been applied to calculate the present value in which, oppositely, principal amount with interest has been divided by the interest rate. So, if your friend returns you Tk.100.00 after one year, it has present value of Tk.90.91. Generally due to the interest rate differences occur between present value and future value.

By the use of compounding and discounting method in different examples, present value and future value of single amount cash flow are being calculated:

Example-1

What will be the future value at the end of the 5 years of Tk100.00 paying 10% rate of interest?

According to Equation -1:

Here, Present Value (PV) = Tk100.00
Interest Rate (i) = Tk10%
Duration (n) = 5years
Future Value (FV) = What?
FV = $PV\ (1+i)^n$

Putting Value in Equation,

$FV = 100\ (1+.10)^5$
$= 100\ X\ (1.10)^5$
$= 100\ X\ 1.610$
$=$ TK. 161

Concept: If interest rate is Tk10%, today's Tk100.00 has equal value of Tk161.00 after 5 years.

Example-2:

If interest rate is 10% then what is the present value of Tk100.00 to be received after 5 years.

Let's use equation: 2 to find out the present value of Tk100.00

Here, Future Value (FV) = Tk100.00

Interest rate (i) = 10%

Duration (n) = 5 years

Now, Present Value (PV) = $\frac{FV}{(1+i)^n}$

Putting value in equation,

$PV = \frac{100}{(1.10)^5}$

= TK. 62.09

Concept: If Tk 100.00 will be received after 5 years, then present value is Tk.62.00 (approximately). So, if your friend pay tk.100 after 5 years, in lieu of paying now , then according to present value your loss will be (100-62) =Tk38.00

If interest rate is 20% then present value of Tk100.00 to be received after 5 years =

$= \frac{100}{(1.20)^5}$ = Tk. 40.187

Here it should be noted that if interest rate increases from 10% to 20%, then forTkl00.00 to be received after 5 years, the present value would not be the half of Tk62.00. That means, increase and decrease of interest rate do not have proportionate relationship with the time value of money.

3.3.3 Future Value calculation by the use of compounding more than once in a year:

In above example, one time compounding in a year has been assumed but sometimes more than one time compounding may occur. For example, if money deposited in the bank, it compounds monthly. In that means 12 times in a year. In that case, equation has to be changed in two places. If it compounds many times, then firstly interest rate has to be divided by 12 and secondly total term will have to be multiplied by 12 too.

Example-3: If you deposit Tk l00.00 in a bank at the rate of 10% compounding and you know, it will be compounded 12 times, then after one year how much money will you get?

Equation-3: $FV = PV\left(1+\frac{i}{m}\right)^{(n\,x\,m)}$

Here, Present Value (PV) =Tk100

Interest Rate (i) =10%

Total number of compounding (m) = 12

Number of year (n) = 1 year

Future Value (FV) =?

By Putting Value in Equation,

$$FV = 100\left(1+\frac{0.10}{12}\right)^{(1\,x\,12)}$$

$$= \text{TK. } 110.46$$

Concept: If you deposit Tk.100.00 in a bank after one year you will get Tk. 110.46. Hence you will get Tk. 110.46 - Tk.100.00 = Tk. 10.46 more.

Example: 4

If you deposit Tk 50,000.00 in a bank at 13.5% monthly compounding, then what amount will you get after 10 years.?

$FV = PV\left(1+\frac{i}{m}\right)^{(n\,x\,m)}$

Here, Present Value (PV) = Tk 50,000.00

Annual Rate of Interest Compounded Monthly (i) = 13.5%

Number of compounding in a year (m) = 12

Number of years (n)= 10 years

Future Value with monthly compounding (FV) =?

Putting value in equation, $FV = PV\left(1+\frac{i}{m}\right)^{(n\,x\,m)}$

$$= 50000\left(1+\frac{0.135}{12}\right)^{(10\,x\,12)}$$

$$= 50000 \text{ X } (1.011)^{120}$$

$$= 50000 \text{ X } 3.828$$

$$= \text{TK. } 1,91,423.02$$

Concept: So, today's Tk 50,000.00 and to be received Tk191423.02 after 5 years of the same policy has equal value.

3.3.4 Calculation of Present Value by discounting more than once in a year:

If we pay attention from different view point in above example, we can get the knowledge of present value that, present value of Tk. 191423.00 to be received after 5 years is Tk. 50,000.00. If we know the future value then we can easily find out the present value. This type of calculation is called the discounting

method. In case of compounding more than once in a year, we will find out the present value from the future value through discounting. This situation can be explained through an example:

Example - 5: With the expectation of Tk. 50,000.00 to be received after 5 years, you want to save some money in a bank. One of the banks has proposed to give 10% interest and another bank has proposed to give 9.5% monthly compounding rate. In this condition, in which bank will you deposit money? To take this decision we have to calculate the present value of both proposals.

Bank-A (Annual Rate of Interest compounded annually - 10%)

According to Equation 2:

Annual Rate of Interest,

Here, Future Value (FV) = Tk50, 000.00

Compounded Annually (i) = 10%

Number of years (n) = 5 years

Present Value (PV) = ?

Putting Value in Equation,

$$PV = \frac{FV}{\left(1+\frac{i}{m}\right)^{n}}$$

$$PV = \frac{50,000}{(1.1)^{5}}$$

$$= \text{Tk. } 31,046.07$$

Bank-B (Annual Rate of Interest Compounded Monthly = 9.5%)

Here, Future Value = Tk 50, 000.00

Number of Compounding Annually (m) = 12

Number of years (n) = 5 years

Present Value of Monthly Compounding = ?

Equation-4: $$PV = \frac{FV}{\left(1+\frac{i}{m}\right)^{m\,x\,n}}$$

Putting Value in Equation, $$PV = \frac{FV}{\left(1+\frac{i}{m}\right)^{m\,x\,n}} = \frac{50,000}{\left(1+\frac{0.095}{12}\right)^{5\,X\,12}} = \frac{50,000}{(1.007)^{60}} = \frac{50,000}{1.6050}$$

$$= \text{Tk. } 31,152.64$$

Concept: So, Tk 50,000.00 to be received after 5 years, Tk 31046.07 has to be deposited in Bank- A and Tk 31152.40 has to be deposited in Bank –B. So Bank – A is a profitable proposal.

3.4 Effective Annual Rate of Interest

If loan taken from the Money Lender at 1 % weekly compounding rate, yearly or nominal interest rate will be 52% in 52 weeks, but if interest rate compounded 52 times in a year, EAR or Effective Interest Rate shows different rate.

2019

At 1% weekly compounding EAR is being calculated through the application of following equation:

Equation: 5 $EAR = \left(1+\frac{i}{m}\right)^{m}-1$ EAR = (EAR= Effective Annual Rate)

Here, Annual Interest Rate Compounded Weekly (r) =1%

Nominal Interest Rate (i) =52%

Annual Number of Compounding = 52

Effective Annual Rate =?

Putting Value in Equation,

$$EAR = \left(1+\frac{.52}{52}\right)^{52}-1$$

$$= (1.01)^{52}-1$$

$$= 1.67768-1$$

$$= 67.768\%$$

Concept: That means, Annual 67.61% interest rate and Weekly 1% interest rate are the same.

Exercise

Multiple Choice Questions:

1. What is the main reason of measuring the time value of money?

a. interest rate b. currency policy

c. liquidity d. additional profit

2. Which of the following is given on principal with interest?

a. simple interest b. compound interest

c. total interest d. net interest

3. Discounting process means

i) process of measuring the amount of discount

ii) techniques to measure the present value of money

iii) process of dividing principal with interest by the interest rate

Which one is correct?

a) i & ii b) i & iii

c) ii & iii d) i, ii & iii

4. Which factor of the following has vast importance in Time Value of Money?

a. Identify the interest rate b. Investment decision taken

d. decrease installment of loan c. measure financial condition

5. Withdrawing from the provident fund Mr. Harun wants to invest some money in Digital Bank at 12% interest rate for 5 years. Bank says, after 5 years bank will pay Tk 5,00,000.00. How much money Mr. Harun wants to deposit in Digital Bank?

   a. Tk 2,00,730.00

   b.Tk 2,83,720.00

   c. Tk 3,13,520.00

   d. Tk 4,40,000.00

Read the following stimulant and answer questions 6, 7 and 8.

Three friends shuvo, Shainik and Munna started a computer and mobile servicing center together in their business area. They felt the need to buy a computer for their service center. When they applied for loan in the local banks, bank A agreed to allocate Tk 50,000 on 20% and bank B the same amount on 10% compound interest refundable in 2 years.

6. Which method is used to calculate present value?

   a. compound method

   b. discounting method

   c. determining simple interest

   d. determining EAR

7. How much will they have to pay if borrowed from bank A ?

   a. Tk. 50,000

   b. Tk. 60,000

   c. Tk. 62,000

   d. Tk. 72,0000

8. How much had to pay if borrowed from bank B?

   a. Tk. 10,555.20 (approximately)

   b. Tk. 11,019.55 (approximately)

   c. Tk. 11,030.20 (approximately)

   d. Tk. 13,019.50 (approximately)

Short Questions:

1. What is Time Value of Money?
2. What is compound rate?
3. What do you mean by the interest rate?
4. What is Effective Rate?

Creative Questions:

1. Mr. Alim is going to deposit tk.6 lac in "6 years double benefit policy". But he became confused by his friend's advice, who said to keep money at 13% interest rate in "Term Saving Scheme" for the same duration.

   a. What differences occur between the present and future time due to interest rate?

   b. Explain Compounding Method.
   c. Calculate the future value of Mr. Alim's savings in Compounding Method.
   d.Evaluate the logic of Mr. Alim's investment decision.

2. Mr. Farhad is thinking to keep Tk 10 lac at 10% interest rate for 10 years in Padma bank. But his wife Salma suggested to purchase land in municipality, where in 8years land value will be double and thus it ensures extra earning of Tk 2 lac. Mr. F arhad has become confused.

   a) In discounting method which value of money is divided?

   b) Explain the factors which differentiate between present value and future value.

   c) According to the condition of Padma Bank, calculate the future value of Mr. Farhad's money.

   d) Which sector should Mr. Farhad select for investment? Give your opinion.

Chapter Four

Risk and Uncertainty

Risk and uncertainty create obstacles in fulfilling goals for business organizations, investors and others; and we generally observe a deviation between the expected results and realized results of firms and investors. From this deviation risk arises. This risk plays an important role in making decisions by firms and investors. That is why it becomes necessary to recognize and measure risks before taking any business decision. In this chapter we will learn about different aspects of risks and uncertainty.

Picture: Damages from fire and earthquake.

After reading this chapter we shall be able to:

- able to explain the concept of risk and uncertainty.
- identify the source of different types of risk and uncertainty.
- analyze the impact of risk and uncertainty on financial decisions.
- ascertain the difference between risk-free income and risky income.
- explain the financial decision making process by using standard deviation and variance.

4.1 Introduction

Rohan is a student of class nine. He expects to score GPA 5 in his S.S.C examinations. Mr. Rashed is farmer. He expects to get a good harvest from his lands. Sumana is a last year student of BBA program of Dhaka University. He expects to join a good job after completing his BBA degree. Here obtaining a GPA 5 by Rohan, getting good harvest by Mr. Rashed and joining a good job by Sumana, everything is uncertain, because every event here is related with the future. Rohan may or may not achieve GPA 5; Mr. Rashed may or may not get good crops from his farm, and Sumana may or may not get a good job offer. Thus people often face different kinds of uncertainties in their personal life as well in their businesses. For example, whether a firm can maintain its high sales volume in future, whether it will be able to earn the rate of return as expected, whether it will be able to purchase raw materials at the expected price, each of these and most other issues have a great deal of uncertainty. In the same way, an investor faces uncertainty in getting expected return by buying a share of stock, or a company faces uncertainty in earning expected cash-flow by making investment in long term projects.

Because of these uncertainties the realized return of any firm gets higher or lower than expected return. The possibility of actual results to be different from the expected results is known as risk. For example, the company was expecting to earn a return of 20% next year but could earn only 15%. Here the deviation of 5% is the source of risk. Few more examples are shown below to explain risk:

Assume that a company expected that it would be able to sell goods worth Tk. 5.0 million, Tk. 6.5 million and Tk. 7.5 million in the next three years. But at the end of these three years the company found that its actual sales in those years were Tk. 4.5 million, Tk. 6.6 million, and Tk. 7.1 million. An investor purchased the shares of a company with the expectation of earning dividends of Tk. 15 per share only to find at the end of the year that he has ended up receiving a dividend of only Tk. 10 per share. Thus investors and firms find variations between the expected results and actual results from almost all of their decisions and the probabilities of those variations create risk. For example, when the investor expects to receive 15 percent dividend but receives 20 percent dividend instead, the extra 5 percent dividend is considered as the source of risk. This is a risk because the investor had no idea beforehand why the realized return was higher than the anticipated return.

Another example of risk is like this. We have received from the first of the two investments 10 percent return in last three years each. Our rates of return from the second investment were 5%, 10%, and 15% in the last three years respectively. Though the average return from both the investments was equal, that is 10% but the first investment is considered as risk-free while the second investment is risky. The reason is that one of the concepts of risk is the ups and downs or volatility of rate of return. The higher the volatility, the higher the risk is; and where there is no volatility, there is no risk.

4.2 Differences between Risk and Uncertainty

Though risk arises from uncertainty, there are some differences between these two concepts. Firstly, not all uncertainties are risks. It has been said before that only the possibilities of occurring unfavorable events are risks. If there is no possibility of occurring unfavorable events then it is not considered as risks. In other words, the part of uncertainty that can be measured is called risk. Some uncertainties are not measurable. For example, the Chief Executive Officer of a company may die and it is an uncertainty, but this uncertainty cannot be measured. As a result, this uncertainty is not called a risk. Secondly, as risk can be measured, it can be controlled by applying different techniques. But uncertainties cannot be controlled or avoided. For example, the office building of a firm can be destroyed due to earthquake, but as earthquakes are beyond the controls of the firm, it cannot avoid the uncertainty. On the other hand, the possibility that sales of the firm will decline in the next year is a risk because, this risk can be measured and the firm can take several steps to reduce this risk such as, it can sell its products in advance.

4.3 Sources of Risks

A certain amount of risk is associated with every decision of a firm. Because of these risks, firms face the uncertainty of not achieving their desired outcomes. This is why firms need to manage these risks properly. To manage the risks properly, it is necessary to understand the sources and types of risks the firm is facing. In this regard, the perspective of the business organizations or firms is different from that of investors. The sources of risk from different perspectives are discussed below:

From the Perspective of Business Firms:

A) **Business Risk:** To run a business organization, successfully a business needs to incur different operational costs such as, cost for raw materials, wages and salary, office rent, insurance etc. Risks may arise from the inability to meet these costs. The ability of the firm to meet its operating costs depends on the combination between its stability of sales return and operational cost, that is, the proportion between fixed and variable costs. If the revenue earnings are volatile, that is, in some phases the sales return is high but in other phases it gets low, the firm will face uncertainty and difficulty in meeting its operating costs. Moreover, if the fixed operational cost such as, rent or insurance expenses are high, the firm also encounters business risks. If the firm collects its fund from only internal sources, and not from any external sources, the risks related with earning is known as business risk. The sources of this risk are change in price of the products, change in the sales volume, change in purchase price of factors of production, and tendency to have excessive fixed costs etc.

B) **Financial Risk:** This risk is aroused from financing from external sources. The firm which has high amount of capital collected through loans is more exposed to this financial risk. It happens because it is compulsory to pay interest for the debt capital. On the contrary, financing from internal source does not obligate the firm to distribute any dividend among the shareholders. As a result, if a firm using debt capital fails to earn any profit, the creditors may take legal action against the firm, and consequently, it may be forced to close its business. Use of debt financing creates the obligation to pay interest in addition to the principal amount. For example, if a company sells bonds worth Tk. 5 millions at a rate of 15% interest and maturity period of 5 years, then it is has to pay Tk. 750,000 of interest per year and Tk. 5 millions at the at end of five years. Generally the company repays the debt capital from the cash flow generated from investments made by using the debt capital. If for any reason, the company cannot earn enouh cash flow from its investments, it may become unable to repay its debt obligations. If it cannot make debt repayment for a long period of time, the creditors may take legal action against the debtor company which may force the company to be bankrupt. Hence, the risk that is created from the inability to repay debt obligations is known as financial risk.

Activity: Identify the differences between business risk and financial risk.

From the Perspective of Investors:

A) Interest Rate Risk: The investors who buy bond, debentures etc. have to face interest rate risk. The reason is that the value of their investments moves upward or downward with the change in market interest rate. If interest rate increases, market value of these investments that is bonds and debentures goes down, and if the interest rate decreases, their value goes up. The possibility of decreasing the value of investments as a result of change in market interest rate is known as interest rate risk.

B) Liquidity Risk: After investing money in stocks, bonds and debentures, shareholders may require to encash their investments. It is expected that shareholders will be able to sell their investments at a reasonable price to convert those investments into cash. Liquidity risk is introduced when they fail to sell their assets easily and at a reasonable price. Liquidity risk depends on size and structure of the market at which investments such as stocks, bonds and debentures are traded. This risk is higher for sole proprietorship and partnership firms. Because these firms cannot sell their fixed and current assets easily and at a good price in case of urgent need for cash. On the contrary, when an investor purchases the share of a company, the concerns for liquidity risk is generally low. The reason is that he or she can sell that stock any time in the secondary market or share market if required. For capital market, if any investor buys bond or debenture of a company and takes part in banking activities or involves in foreing business, in that case, they have to face liquidity risk . Because we have only limited number of buyers of bond or debentures compared to the number of buyers of stocks in or capital market. In that case liquidating of those investments becomes time consuming and costly.

4.4 Implications of Risks

The fact that risk has important roles in the decision making process of business organizations shows the significance of risks.

Firstly, as already stated, risk has impacts on the success of any company, that is, in fulfilling the overall goal of the company. Risk has been defined as the probability of experiencing any unexpected outcome or events. Therefore, if the company anticipates and analyzes different future conditions and take necessary measures in its decision making process, it can avoid unexpected losses. For example, a company has set up its production plant at the bank of a river considering only the convenience of transporting its rawmaterials. But if the plant is unfortunately destroyed by high floodwater and river bank erosion after

a couple of years, the company will face a huge amount of loss and it will fail to achieve any success. But if the company considered any possibility of such a disaster beforehand, it would have avoided setting up the plant just by the river and could possibly be turned into a successful company.

Secondly, earning profit by a business organization depends on the demand of its products in the market. Therefore, before starting a business, a firm should analyze the demand of its products and make a realistic estimate of its sales. In other words it would plan ahead and implement the plan wisely. The actual demand can be higher or lower than the estimated demand. If the actual sales are lower than the expected sales then the firm cannot earn enough profit. For example, a firm produces a large volume of umbrella predicting excessive rainfall in a season. But if the firm finds that rainfall is not as much as it was predicted, there are chances that a portion of the umbrellas will remain unsold. As a result, the firm will fail to earn sufficient profit. But if the firm could add some more products in its production line then demand of those products could be unaffected by the volume of rainfall and the firm could earn its targeted profit.

4.5 Risk-free Return and Risky Return:

Not all returns are risky; there are some returns which are considered risk-free. For such a return, the actual return is always the same as expected return. If you keep a time deposit in a bank, you may not find any significant difference between the expected return and the realized return. This is a kind of risk-free return. Generally returns from treasury bills and treasury bonds issued by the government are considered risk free. As these are issued by the government, these investments are considered risk-free. As the earnings from these securities are fixed, they are deemed to be free from any risk.

The probable deviation of actual earning from the expected earning is the risk. Generally one part of the return is risk free and the other part is risky. The returns which carry risk are known as risky returns. For example, when an investor invests in purchasing common stock of a company, there is no certainty that the actual dividends will be as much as the expected dividends. The earning of the company in future years in combination with some other relevant issues will determine the amount of dividend to be distributed by the company in those years. That is why returns of common stock investors are considered as risky returns. Moreover, return from common stock is recognized as the most risky return as common stock does not offer investors any fixed earnmgs.

4.6 Measurement of Risk and Uncertainty

Measurement of risk is essential for successful operation of any business organization. As risk is formed by the deviation of actual risk from the expected risk, the higher the deviation, the higher the risk. Similarly, the lower this deviation, the lower the risk. Thus it is natural that risk can be measured by measuring the deviation of actual return from expected return.

There are different methods of calculating risk. Different methods are applied according to the requirement and condition. In this stage we will apply standard deviation as the measurement of risk.

Standard Deviation: We can use standard deviation to measure the risk of both historical return and expected future return. This is a statistical method. The formula of standard deviation is given below:

$$\text{Standard deviation} = \sqrt{\frac{\Sigma (\text{income rate - avarge rate})^2}{\text{n-1}}}$$

Here, Σ(Rate of Return – Average Rate of Return)^2 = sum of squares of the deviations from historical rate of return to average historical rate of return

n = number of years

Example: In the following table, rates of return of a project from 2007 to 2011 are given. We will calculate the average return and the risk of the project.

Year	Rate of Return (%)	Deviation from the Average (Return – Average)	Square of deviation
2007	20	(20 – 13) = 7	(7X7)=49
2008	5	(5 - 13) = 8	(8X8)=64
2009	-5	(-5 - 13) = 18	(18X18)=324
2010	15	(15 - 13) = 2	(2X2)=4
2011	30	(30 - 13) = 17	(17X17)=289
Total	65%	Total of squared deviations	730
Average Rate of Return	65/5 = 13%	Average squared deviation = 730/(n-1)	182.5

Standard deviation $= \sqrt{182.5\%}$

$= 13.5\%$

If we divide the total of five years' rate of return by 5, we will get the average rate of return for last five years. The value is shown in the table as 13%. Then we have to calculate the standard deviation for measuring risk. At first we will find out the deviations of average return or 13% from each year's rate of return. In the next column we compute the square of the deviations. Then the total of the squared deviations are computed as 730. We will divide it by (n-1) or (5-1) or 4 to get variance. The divisor will be always one less than the number of years for which returns are given. Finally the standard deviation will be calculated by finding the square root of the variance. In this example it is 13.5%. As a result, considering the income from 2007 to 2011, our average rate of return is 13% and risk is 13.5%. We can take decisions for the future by considering this return and risk measurement. For example: if we have an alternative project which offers us 13% return with 15% standard deviation or risk, then we will be better-off by accepting the first project. Because for the same level of return, lower risk is more acceptable than higher risk. Again, if there is an alternative to a project where we will have same risk but lower return, the original project will be more acceptable than the alternative one. The reason is that for the same level of risk, higher rate of return is more desirable.

Decision-making Principles: Generally higher value of standard deviation indicates higher risk and lower value indicates lower risk. Lower risk in the same level of return or higher return in the same level of risk is more acceptable.

Activity: The rates of return for an investor in last ten years are 10%, 20%, -5%, 15%, 35%, 10%, 25%,30%, 12%, and 0% respectively. Determine the standard deviation of rate of return for the investor.

Exercise

Multiple choice questions

1. What is the consequence of inability to pay office expenses, insurance etc.?

A. financial loss B. shortage of capital
C. business risk D. uncertainty of profit

2. In which of the areas of business organizations risk plays a significant role?

A. in taking decisions B. in making plan
C. in management D. in collecting capital

3. Risk is measured by-

i. applying various techniques ii. developing a good plan
iii. decreasing the cost of doing business

Which one of the following is correct?

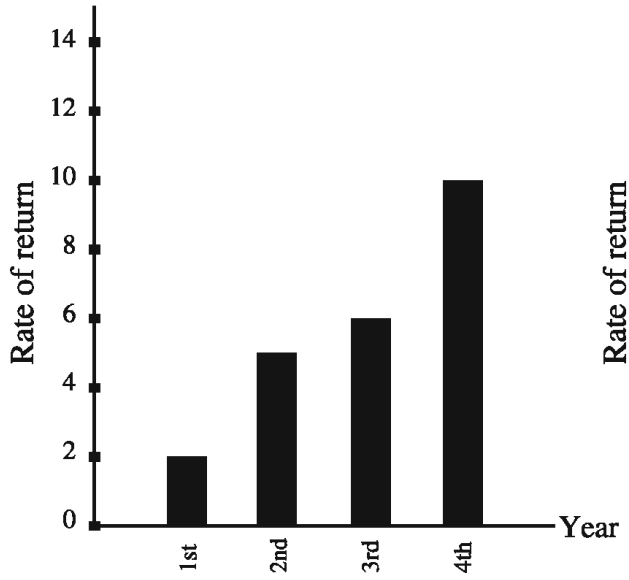
A. i and ii B. ii and iii C. i and ii D. i, ii and iii

Short questions

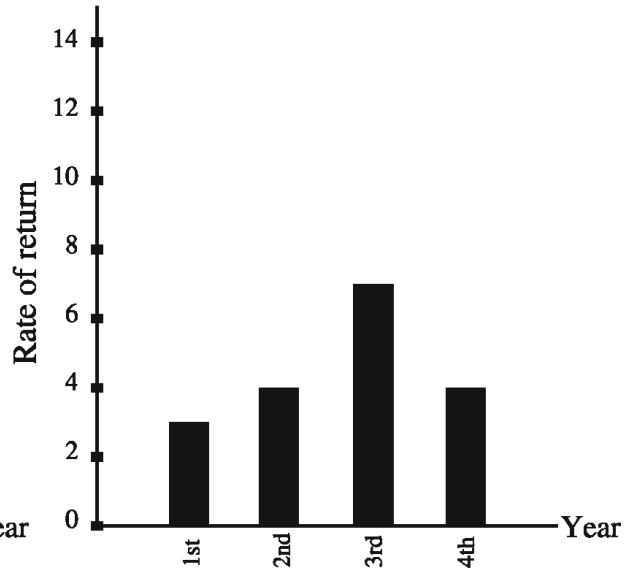
1. What is called the possibility of happening anything beyond anticipation?
2. What kind of method is standard deviation?

Creative questions

After completing a training programme from a fashion designing institute, Raina Hoq established an organization named 'Ahban Crayat'. It is located in Dhaka city and Comilla city. Her friend Romana started doing business of various products from Monipuri Handmade Garments in Sylhet area. Business performances of these two friends are shown below:



Bar Chart: Raina Hoq



Bar Chart: Romana

A. What can be determined from the deviation of past rate of returns?

B. Explain the reasons of achieving a lower than expected rate of return in a business.

C. Describe the reasons for Romana's less success in her business.

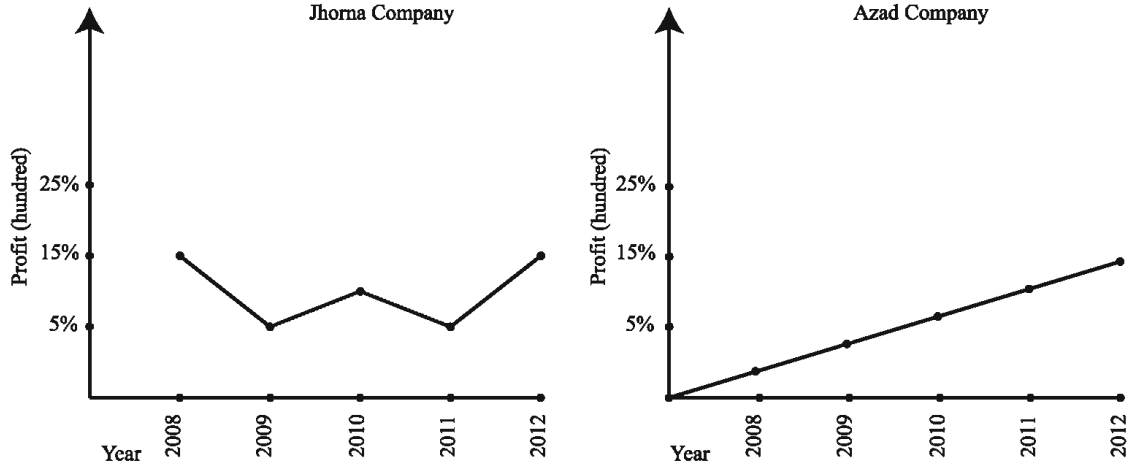
D. Make a comparative analysis between the business scenario of Raina and Romana.

Creative questions

Name of the investor – Mr Shafiqur Rahman

Name of the organizations where he has invested: a) Jhorna Company Limite

b) Azad Company Limited



A) Which losses can be avoided by taking steps in advance after analyzing the probable future conditions and events?

B) Which risk is faced by the bondholders? Explain.

C) Analyze the conditions of investments of Mr Shafiqur Rahman in Azad Company.

D) Which steps will be appropriate to stabilize the income of Jhorna Company? Analyze.

Chapter five

Capital Budgeting

Success and existence of any business organization depends on the long term investment decision. To run the business most of the time an entrepreneur has to take different investment decisions regarding fixed assets like purchase of land, building, furniture, equipments etc., and replacement of these fixed assets, modernization of production process, development of new products. Whether these long term decision will be profitable or not for the company. It requires following different methods and principles for the proper evaluation of different alternative investment decision. Throughout this chapter we will be able to know about different financial methods, principles those are used in evaluation process for taking long term investment decision.

After reading this chapter we shall be able to:

- discuss the concept of capital budgeting.
- assess the importance and objectives of capital budgeting.
- implement different methods of capital budgeting.
- identify the different limitations of capital budgeting.

5.1 Capital Budgeting:

Three friends Rahim, Karim and Shankar run their individual business. Rahim has been thinking to purchase a fridge for his grocery shop for last few days. Six months back, Karim started his tailoring business with a sewing machine. Guessing the increasing demand he thought to purchase a new machine. On the other side, to start a saloon Shankar is thinking to purchase some essential furniture and hair cutting machine. Here, fridge purchase for grocery shop, sewing machine purchase for tailoring shop and wheel chair, hair cutting machine purchase for saloon are all long term investment decisions. Whether these long term investment decisions will be profitable or not require an evaluation process of finance. Capital budgeting is such kind of evaluation process. In this respect, income and expenditure of every investment decision or project have to be estimated. After completing the estimation, net cash flow or net profit of this investment decision or project is being measured. Here income means, earned money from selling and expenditure means, raw material expenses, selling expenses and depreciation expenses and other expenses. If income is deducted from the expenditure, the remaining is the total profit; if tax is deducted from the total profit, the remaining is the net profit. Again if depreciation is added with this net profit, we will get cash inflow. Comparing this inflow with the outflow or initial investment if inflow appears higher than outflow then this investment decision considered as profitable and can be accepted.

So, it can be said that capital budgeting is a process related with long term investment decision. This decision process starts from the purchase of fixed asset and include modernization, replacement of these asset. Fixed asset, business expansion, new product development are also within the scope of this decision.

5.2 Importance of capital budgeting:

Capital budgeting is the key to success. Business is directly benefited by the practical and proper capital budgeting decision. If capital budgeting technique cannot be applied properly, huge loss will incur in business.

Here importance of capital budgeting is given below:

1. Profit Oriented: Main objective of business is profit earning. Capital budgeting contributes in profit earning. Generally, a company invests in income oriented fixed asset with the expectation of earning profit. So profit depends on the capital budgeting decision. By purchasing a fridge, grocer's sales will increase.

Thus profitability of this shop will start to increase. But if people of this locality are not habituated in cold drinks or in ice-cream, sell may not be increased as per expectation.

2. Voluminous size of investment: Generally, a great sum of fund is involved in making different capital decisions for purchase, addition, modernization and replacement of fixed assets. This is why usually mistakes in decisions cannot be amended if there is any; even if amendment is possible, huge compensation has to be incurred. For example, considering that a business will get electricity and gas supply in due time, a company decides to establish a factory near Dhaka. However, after establishing the factory, they find out that government has taken decision to stop providing new connections for electricity and gas supply. In this scenario, the factory won't be able to start production but the company may have taken a large sum of loan and it has to repay interest for it at a regular basis. So, such type of mistakes can turn the business into a failure. If it were about a small sum of money, funding could be done from somewhere else; but there is no such scope since it's a huge investment. If decision is taken to sell the project for repaying bank loan, suitable price cannot be received because the project has already been unprofitable. So the business has to incur a great loss.

3. Risk oriented: Most of the factors used in the evaluation process of capital budgeting decision are based on future which is always uncertain. For example: whether installation will be profitable or not depends on the expected market demand, amount of selling and quantity of production etc. Calculation of cash inflow and cash outflow may not occur as per expectation. Thus, capital budgeting will be proven as wrong decision. It can be explained in another way. Let's assume that an umbrella producer expands his business by purchasing some new capacity machine by apprehending the huge rainfall. If rainfall doesn't occur as per producer's expectation, business has to face losses. In long term financing risk calculation is also very important consideration. Capital budgeting techniques play important role in risk managemet.

5.3 Application of capital budgeting:

Capital Budgeting is applied in all aspect of long term investment decision. Capital budgeting typically involves substantial expenditures thus this decision depends on planned financing. Now we will discuss some popular application of capital budgeting decision.

Fixed Asset Purchase: To start a new business, every business firm has to purchase fixed assets like land, building, equipment, furniture etc. At the time of

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starting a business a grocer has to take different purchase decision like, fridge purchase, orders to make some furniture (shelf), renovation expenses etc. Again in such a way, an owner of a restaurant requires to purchase chair, table, fridge and security money for holding the possession of a room for restaurant. In any type of business which incurs fixed cost requires to apply capital budgeting process before purchase any fixed asset. In running business sometimes fixed asset may become obsolete. That time replacement is required for the fixed asset. Business people take this decision by the application of capital budgeting decision.

Business expansion with the intention to increase the production capacity: In case of a running institution, production capacity may be required to increase after starting its business. By the installation of high capacity machine this purpose can be fulfilled. So, decision of purchasing a high capacity machine can be taken after proper evaluation by the application of capital budgeting technique. For example, though in a tailoring shop there is a sewing machine but considering the high demand in Eid festival, shop owner can take decision of purchasing a new machine. To take this decision, owner calculates the cost of purchasing a new machine and by this investment how much income will be increased is another most important measuring factor in purchase decision. All these calculations can be done by the capital budgeting technique.

Product diversification: New product may need to be marketed along with the existing products in the market to extend the business of the Company. For example, with the production of Mango Juice some company may take decision to produce Apple Juice. In case of marketing a new product, decision maker at first has to collect information regarding the life of new product; calculate the cost of production, market demand, administrative cost and expected income. To find out all these, application of the capital budgeting decision is used.

Replacement and modernization: Replacement and modernization of production process are needed as per th requirement of business. For example, if a saloon owner thinks if he can afford to purchase some new or modem technology based machine to increase the efficiency in his hair cutting job, he needs to make a comparison between the incremental cash outlay of this decision and the incremental cash inflow by this decision. If incremental cash inflow is higher than the incremental cash outlay, replacement decision will be profitable. It is another application of capital budgeting.

5.4 Process of Capital Budgeting:

Steps required for Capital Budgeting in long term investment decision:

(a) Expected cash flow

(b) Discount rate measurement

(c) Capital Budgeting technique selection and application

(a) Expected Cash Flow: Long term decision includes machinery purchase, business expansion, technological up gradation of production process and other decisions associated with huge amount of cash outflow. Cash flow estimation is the first step of capital budgeting decision. To estimate the cash inflow, every business has to identify the expected sells amount, expected current expenses, cost of capital and other expenses. In business cash inflow occurs from selling and outflow occurs from current expenses, cost of capital and from other expenses. It was previously said that for calculation of total sells amount, owner has to estimate the expected selling price, expected sells amount at that price and expected market demand. Every year business earns income by selling the products. We can find out net cash inflow from this sales revenue. If any mistakes occur in estimation, it influences the business decisions. In the same way, cash outflow occur from different expenses. Estimation requires finding out the current cost and fixed cost

(b). Discount rate: By the use of discount rate estimated cash flow will have to be converted into a present value . You have known in Time Value chapter though the amount of cash flow in the future consecutive years are equal, in present value consideration they are not same. Present value of the future cash flow differs with the project expected life and discount rate. That means the later the cash flow the lesser the present value if other things remain equal. As cash flow of any project is earned for many years, so to select a suitable project or investment opportunity business needs to apply the capital budgeting techniques to discount the future cash flows. Through this discounting process present value of the future cash flows can be calculated. If present value of cash inflow is higher than the present value of cash outflow, then this investment decision can be taken. Generally in capital budgeting decision cost of capital can be considered as discount rate. You will be informed about the cost of capital in next chapter.

(c) Application of capital budgeting technique: After the estimation of cash flow and discount rate, capital budgeting technique is selected. Different techniques of capital budgeting are being used in project selection.

But all techniques are not accepted equally. Every technique has some advantages and disadvantages. Project is selected by considering the nature, risk and other issues of the project.

5.5 Techniques of Capital Budgeting:

Different techniques are used in guiding the capital budgeting decision. Selection of profitable project in accordance with the objective is the main target of these techniques. Example: Sewing machine of tailoring shop, fridge of a grocer and hair cutting machine in saloon are all long term investment decision.

Techniques of the capital budgeting are as follows:

1. ARR (Accounting Rate of Return) Method.
2. Pay Back Period Method
3. NPV (Net Present Value) Method
4. IRR (Internal Rate of Return) Method

1. ARR Method:

Easy technique of capital budgeting is ARR method. Information collected from the financial report of the Institution this rate is calculated. In this technique net profit is being considered in lieu of expected cash flow. You have learned, if all cost including tax is deducted from the sells revenue then net profit comes out. If average net profit is divided by the average investment then average rate of profit comes out.

$$\text{It means average rate of profit} = \frac{\text{average net profit}}{\text{average investment}} \times 100$$

In this technique, if expected total profit is divided by the total year then average profit comes out and if investment is divided by the 2, average investment comes out.

Decision Rule:

- The more the ARR, the better. If project is financed by taking loan from the bank then bank demands interest. Loan will not be granted if ARR is lower. For some companies minimum ARR remain fixed by the company's administrative decision. If calculated ARR for a specific project is lower than the minimum acceptable ARR, this project will be rejected. On the other side, if calculated ARR is higher than the minimum acceptable ARR, this project will be accepted.

- In case of multiple projects, projects are arranged in an order by following the above principle. Among these, necessary numbers of projects are selected by considering the financial capability.

Equation used in ARR calculation is very simple to understand. Moreover, this is popular with many people as necessary information can be retrieved from financial statement. But this method has some complicacy. Firstly: In ARR method net profit is used rather than cash flow. So, some people thought that this method is not a complete technique. Secondly: This method doesn't consider the time value of money. But, present value of cash flow comes from different years of project life, are not same. As value of today's Tk 1.00 is not as same as the value of Tk 1.00 in future time. But, ARR method doesn't consider this.

Now, through an example, we will describe ARR Method.

Example: Let assume, your father is thinking to invest in two projects A & B. Elaborate explanation of these two projects are given below:

Project - A: Project life is 3 years and Tk. 1 core is needed as initial capital. If this project is implemented, in 3 years expected sells will be Tk. 8 lac, Tk. 199 lac, Tk. 80 lac respectively and expected current cost of selling will be 40%. So, at the rate of 40% current cost of selling will be Tk. 3.2 lac, Tk. 79 lac and Tk. 32 lac respectively. This current cost of selling includes the cost for raw material, labor wages, electricity bill etc. Fixed cost will not be changed with the change of production quantity like, cost of building, land machineries etc. So, expected fixed cost is Tk. 5 lac per year. For the coming 3 years after calculating current cost. Then depreciation cost comes.

After that, dividing the cost of machineries by the life of the machines depreciation cost will be calculated. In every project investment has to be made for machinery. As sells will continue for 3 years so, life of the project can be counted as 3 years. Depreciation cost will be Tk. 33.33 lac. If current cost of selling, fixed cost and depreciation cost is deducted from the sells revenue then project's taxable income will comes out. Assume tax rate is 30%. This information shows that in the first year in lieu of profit loss incur Tk. 33.5 lac. But in 2nd year and 3rd year profit will be respectively Tk. 81.1 and 9. 7lac. Here it is mentionable that, if profit earned as tax is calculated at the rate of 30% such a way ,tax will be deducted also from the loss of 1st year with the intension of lowering the amount of loss and also of lowering the per year tax. In project - A for the consecutive 3 years expected net loss for 1st year is Tk 33.5 lac, in second year net profit is Tk 56.80 lac and in 3rd year net profit is Tk 6.8 lac.

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Project-A

Initial Capital	Amount (Lac)		
	Year 1	Year 2	Year 3
Sales	8.00	199.00	80.00
Current cost (on sells 40%)	3.20	79.60	32.00
Fixed cost	5.00	5.00	5.00
Depreciation	33.33	33.33	33.33
Taxable Profit/Loss	(33.50)	81.10	9.70
Tax	Tax fixation is not necessary for the case of loss.	24.32	2.90
Net income	(33.53)	56.75	6.77

As per above information ARR of the project can be calculated in following ways:

Here, Average profit $= \frac{-33.50+56.75+6.77}{3}$ = Tk 10.06 lac

Average Investment= $\frac{100+0}{2}$ = Tk 50 lac

So, average Rate of Return (ARR)= $\frac{10.06}{50}$ x100 = 20.12%

Project-B: Similar to project - A project - B also has 3 years life and initial investment is assumed Tk 1 crore. In 3 years from this project sell is expected to be Tk 151 lac, Tk 110 lac, Tk 49 lac respectively. Forecasted current cost will be 30% of total sells amount. Fixed cost is estimated Tk 20 lac and depreciation is Tk 33.33 lac per year. Like project - A forecasted tax rate is 30%.

Project-B

	Year 1 (Tk. Lac)	Year 2 (Tk. Lac)	Year 3 (Tk. Lac)
Sales	151.00	110.00	49.00
Current cost	45.30	33.00	14.70
Fixed Cost	20.00	20.00	20.00
Depreciation	33.33	33.33	33.33
Taxable income	52.37	23.67	(19.03)
Tax	15.71	7.10	—
Net Profit	36.66	16.57	(19.03)

Here,

Average profit = 36.66+ 16.57-19.03 = Tk 11.40 lac.

Average Investment =100+0/2 = Tk 50 lac

S0, Average Rate of Return (ARR) = 11.40/50 x100 =22.80%

Here it is mentionable that ARR of the two projects are not same. Here ARR of project "A" is 20.12% and project "B" is 22.80%. ARR of project "B" is higher, so the institute will decide to invest in project "B".

2 Pay- Back Method:

Pay-Back Method gives the answer about after how much time th invested capital will come back. This method is very popular and easy method of project evaluation or long term investment decision. The pay back period is the amount of time required for the firm to recover its initial investment in project, as calculated from cash inflows. If inflow from business investments and projects are equal, pay back time can be calculated by dividing invested amount of money by yearly cash inflow.

Pay Back Time = investment/yearly cash flow

Let assume, owner of a tailor shop requires Tk.15000 for purchasing the machine. In consecutive 4 years he will ensure yearly inflow of Tk.5000 by utilizing this machine. In that case Pay- Back Time will be:

= Tk.15000/Tk.5000
= 3 years

Inflow coming from the business may not be equal in each year of project life (mixed stream of cash flow). That case Pay back period is calculated by using cumulative cash flow in each year. That means, each year's cash inflow is continually added with the inflow of the next year until the recovery of investment.

In example - 3 (Application of ARR method) net profits were consecutively- Tk. 33.53, 56.75 and 6.77. In Pay back and in other method of capital budgeting cash flow is being used in exchange of net profit. Generally cash flow is found by adding the depreciation with the net profit. So, if calculated net profit of project- A is added with the depreciation of that project, then cash flow can be calculated.

	Year 1	Year 2	Year 3
Net profit Ad depreciation	(33.53) 33.33	56.75 33.33	6.77 33.33
Cash flow	(0.20)	90.08	40.10

Cash flow can be calculated as below:

Year	Cash Flow	Cumulative Cash Flow
0	-100	-100
1	-0.20	-100.20
2	90.08	-10.12
3	40.10	29.98

From the structure above it is mentionable that in 2 years invested amount is recovered. So pay back time will be:

$$2 \text{ years} + \frac{10.12}{40.10} \text{ years} = (2+0.25) \text{ years} = 2.25 \text{ years}$$

Again in ARR method cash flow of project "B" can be calculated by adding the depreciation cost with the estimated net profit.

	Year 1 (Tk. lac)	Year 2 (Tk. lac)	Year 3 (Tk. lac)
Net profit Ad depreciation	36.66 33.33	16.57 33.33	(19.03) 33.33
Cash flow	69.99	49.90	14.30

Cash flow can be calculated as below:

Year	Cash Flow	Cumulative Cash Flow
0	-100	-100
1	69.99	-30.01
2	49.90	19.89
3	14.30	34.19

In above structure, it is mentionable that in 1st year Tk.69.99 of total investment is recovered. In 2nd year cash inflow will be Tk. 49.90 but only Tk. 30.01 of total investment is remain left to recover. So to recover Tk. 30.01 pay back time will be 30.01/49.90 years = 0.6 years. So pay back time will be 1.6 years.

It can be calculated by following formula:
Pay back time = 1 year + 30.01/49.90 years = (1+0.6) years = 1.6 years

Decision Rules:

In Pay back Time Method, the lower the recovery time or pay back time, the more it is an attractive project for investment. Oppositely, larger pay back time indicates more riskiness of the project.

Again, if many alternative projects are available for the company then those projects are arranged in ascending or descending order. After that most attractive projects are selected depending on the financial capability of the company and remaining are rejected.

In a company, officers in management specify their expected pay back time as a measure-ment scale. It is specified by the management by considering the different factors like nature of project, risk of the project etc.

Limitations of Pay back Method:

Pay back method is the easiest and most popular method of capital budegeting. Though this method is very simple to use but cannot fullfil all requirements of the investors. Here some limitations of this method are discussed below:

1. Pay back is not actually a rate of profit. It is the time to recover the investment. After crossing this Pay back Time company will not gain any profit but it ensures the recovery of loss.
2. If there are two or more projects of which the pay back period is lowest is accepted. Pay back period method is not applicable if there is single project.
3. Cash flow entering the business after the Pay back Period is not considered in project evaluation. In project-A Pay back Period was 2 years. In this condition if large amount of inflow comes in 3rd year, it will not be considered and still Payback Period will be 2 years.
4. This method doesn't consider the time value of money. In Time Value chapter we have learnt that tk.5 of next year is more valuable than Tk. 5 after 5 years. Here, each year's inflow is considered equally valuable.

Activity: Let's assume, your father thinks to invest Tk.50,000 in a project. From which in 6 years your father is expecting Tk.10,000, Tk.15,000, Tk.20,000, Tk.10,000, Tk. 20,000 and Tk.30,000 respectively. Calculate its Pay back Period.

But, among all capital budgeting method Net Present Value (NPV) and Internal Rate of Return (IRR) are more acceptable than the other methods. As these methods consider time value, so these can provide more accurate information in project evaluation. In higher class you will be able to know about these two methods.

Exercise

Multiple Choice Questions:

1. Which is the evaluation method of investment below?
   a. capital budgeting
   b. time value of money
   c. selecting discount rate
   d. Future value policy of investment

2. Which is the equation of calculating the payback time?
   a. $\frac{\text{cash flow}}{\text{investment}}$
   b. $\frac{\text{investment}}{\text{cash flow}}$
   c. $\frac{\text{investment}}{\text{yearly cash inflow}}$
   d. $\frac{\text{yearly inflow}}{\text{outflow}}$

3. What is called the difference between cash inflow and cash outflow?
   a. initial investment
   b. cash out flow
   c. total current cost
   d. total depreciation

4. Which Technique of capital budgeting is important?
   a. project selection
   b. identify the objective of institution
   c. calculate profitability of project
   d. identify the rate of return

5. Dr. Shamima has founded and directed a hospital by investing her own capital. Which decision will she take through capital budgeting?

a. medicine procurement

b. X-ray machine purchase

c. medicine price fixation

d. color change of hospital building

Read the following stimulant and answer the questions 6 & 7.

Chief managing director of Shemanto Company Miss. Borna has divided total profit by 4 before calculating the profitability of investment of 4 years without adding depreciation. But total investment has been divided by 2.

6. Which method was followed by Mrs. Borna?

a. average rate of return

b. pay back time

c. net present value

d. internal rate of return

7. Limitation of the method mentioned in the stimulant

i) time value of money is avoided

ii) value of all cash flow is equal

iii) divide profit and investment by the different number.

Which one is correct?

a) i & ii

b) i & iii

c) ii & iii

d) i &ii &iii

Short questions:

1. What do you mean by the long term investment?
2. What is Capital Budgeting?
3. Define cash inflow.
4. Define cash outflow.
5. What is ARR?
6. What is pay back time?

Creative Ouestions:

1. Shatadal Company used to take its investment decision by applying most acceptable method of Capital Budgeting. Recently, finding out the pay back time of two equal investment project Diba & Nishi, they found in 3rd year cumulative cash flow of 0&10 respectively. In 4th year both the projects have identical cash flow 20.

a) Who has to take the liability of the failure of Capital Budgeting?

b) Explain the components which act as differentiator of the cash flow and net profit?

c) Calculate the pay back time of project Nishi.

d) For the purpose of long term investment which project should be followed by the Shatadal Company?

2. By considering the purchasing power of the consumer, taste etc. Shampoo producing company "Smapy Ltd." wants to accept a project which can produce mini pack shampoo, mid sized shampoo, small sized shampoo and side by side the big size shampoo. By estimating the income and expenditure, this 5 years project requires initial investment of Tk 5 crore and selling amount of Tk 70 lac, Tk 1.4 crore, Tk 2 crore, Tk 2.5 crore and Tk 1.6 crore. Other current cost is 40% of sells amount and 30% of taxable income

a. Which is being used as discounting rate in capital budgeting?

b. Why capital budgeting is expectation based?

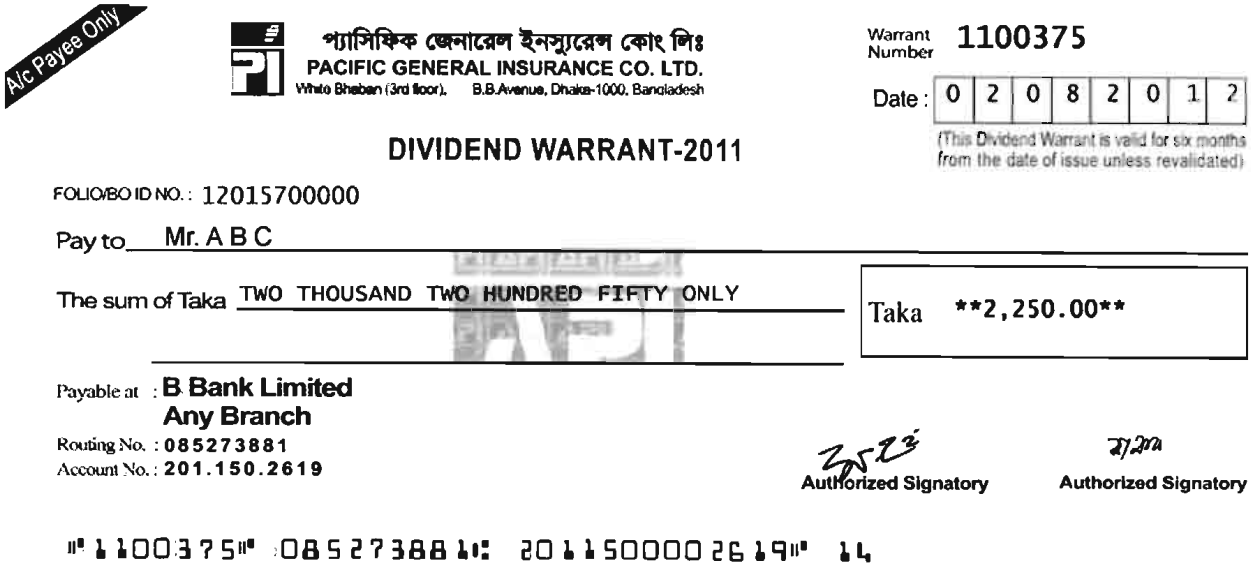
c. Calculate ARR of this project as per instruction given in stimulant.

d. Evaluate the importance of capital budgeting in project selection of the Sampy Company.

Chapter Six

Cost of Capital

Every business enterprise has its own cost of capital. Cost of capital means the cost of funds gathered from different sources. Usually, the expected income of the financers is considered as the cost of capital of the organization. A business enterprise collects its necessary fund from different sources. The costs of capital of different sources are not equal. So, the cost of capital of each of the sources needs to be calculated separately. In this chapter, we shall be able to know about cost of capital, importance of calculating cost of capital, calculating cost of capital of different sources of fund and other related things.



A/c Payee Only

প্যাসিফিক জেনারেল ইনস্যুরেন্স কোং লিঃ
PACIFIC GENERAL INSURANCE CO. LTD.
White Bhaban (3rd floor), B.B.Avenue, Dhaka-1000, Bangladesh

Warrant Number 1100375

Date : 0 2 0 8 2 0 1 2

(This Dividend Warrant is valid for six months from the date of issue unless revalidated)

DIVIDEND WARRANT-2011

FOLIO/BO ID NO. : 12015700000

Pay to Mr. A B C

The sum of Taka TWO THOUSAND TWO HUNDRED FIFTY ONLY

Taka **2,250.00**

Payable at : B Bank Limited
Any Branch
Routing No. : 085273881
Account No. : 201.150.2619

Authorized Signatory

Authorized Signatory

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Picture : Dividend warrant

After reading this chapter we shall be able to :

- explain the concept of cost of capital.
- explain the significance of calculating the cost of capital.
- calculate the cost of capital.
- evaluate different sources on the basis of cost of capital.

6.1 Introduction

After the investment decisions of the three friends mentioned in the previous chapter, such as, Rahim's buying a fridge, Karim's buying a sewing machine and Sankar's buying a wheel chair and a hair cutting machine they have to finance for these investments. You have learnt that there are many sources of financing like own capital of the owner, loan from friends, bank loan, loan from other financing organizations etc. Financer of each of these sources has some expected income. Here, the amount which is the expected income of the financer is regarded as the cost of capital of the fund collecting organization. For example, if Rahim takes loan from bank at the interest rate of 15%, his cost of capital will be 15%. Likewise, if Karim collects money for buying a sewing machine from his own, the opportunity cost of that money will be his cost of capital. That is, if it seems that he could earn 15% of the investment by investing that money elsewhere, his cost of capital will be 15%.

Big organizations collect necessary fund for their investment from one or more than one sources. Here, the average rate of the costs of capital of all the sources will be considered as the cost of capital applicable for that business farm. Suppose that a company needs 10 lac taka for investment. The company decides to collect of this 10 lac taka, 5 lac taka by selling shares and 5 lac taka by taking bank loan. The owners of the shares expect 18% income from their investment and the bank agreed to give loan to the farm at 12% rate of interest. As a result, cost of capital of the share selling source of the farm will be 18% and that of bank loan source will be 12%. The rate of the cost of capital that we get by making an average of the costs of capital of the two sources will be the average cost of capital of that farm, that is, (18% x .50 + 12% x .50) = 15% . It is mentionable here that as the cost of capital of the farm is 15%, the farm has to earn minimum 15% income before taking the cost of fund in to account, otherwise the farm will not be able to meet the expected income of the shareholders and that of the bank. Therefore, it could be said that the amount of money that is to earn as minimum to meet the expected income of the owners of the fund collected from different soureces is called cost of fund.

6.2 Significance of Calculating Cost of Capital

Cost of capital plays an important role in taking different decisions in the financial management of a company. Cost of capital is applied to all steps starting from choosing the right source of financing according to the need of the company to the assessment of the investment opportunity or evaluation of the project. The significance of cost of capital is furnished below:

First: Investment decision-related. Suppose that a company sets up a factory taking 50 lac taka loan from Sonali Bank at the interest rate of 18%. After commencing the factory, it is found that the business is being able to earn at the rate of 10%, which is less than the 18% rate of interest of the money indebted to Sonali Bank. As a result, the company will not be able to repay the money of Sonali Bank. In such situation, the business will be unfruitful. Therefore, it is an unavoidable duty to know the cost of fund and then take such investment decision so that it is possible to earn more income than the cost of fund. Therefore, it could be said that right calculation of cost of fund is the precondition of right investment decision.

Second: Capital structure-related. Every organization has a desirable loan policy. Desirable loan policy means what portion of the capital a company will collect from borrowing or loan. In a business firm, the equity portion of the owners is called total capital. A company may choose to collect total capital at any ratio, such as, 50% own capital or equity and 50% loan or, 60% own capital or equity and 40% loan or, 40% own capital and 60% loan, etc. The company has to assess the cost of the capital structure of every such ratio and then it has to accept that alternative of capital structure where the cost of capital is minimum. Therefore, cost of capital bears significance also in selecting the capital structure of the business.

6.3 Calculating Cost of Capital

To implement a long term investment decision, a company usually collects necessary fund from a long term source of funding. Long term loan capital, priority share capital, general share capital and reserved income are major sources of these long term funds. A public limited company usually collects necessary fund for implementing long term investment opportunity or projects from among these four sources. There are differences in expected income and type of risk of the financer or investor from each of such sources. For example, expected incomes of loan capital financer and general shareholders are not equal. As the expected income of the investors or financers is considered as the cost of capital of a company, costs of capital of different sources of the company are different. These differences of the cost of capital indicate differences of the investors' or financers' expected income rate and type of risk. Usually, as much risky the financers think their investment to be,so much higher is their expected income. Now, a brief idea of costs of capital of different sources is furnished below:

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a) Cost of Loan Capital

Every company usually collects loan for business from one or more than one sources. For example, the main source of loan capital of small business enterprises like grocery, hair cutting saloon, medicine shop etc. is the loan taken from bank or other financing organization. Besides, big business organizations or companies collect money by selling bond or debenture along with loan from banks or other financing organizations. If financing is done by taking loan from bank or a financing organization, calculation of cost of loan capital is very easy. Here, rate of interest fixed by the bank is the cost of capital of the organization.

Suppose that Sonali Bank agreed to give a grocer a loan of 10 lac taka at 15% interest. Here, the grocer's cost ofloan capital will be 15%. However, this rate is considered as the pre-tax cost of capital of the enterprise. It is to mention that taxable profit of a business enterprise is determined by deducting the amount of interest of loan capital that the enterprise refunds from pre-tax profit. As a result, the company has to give less tax. In this way, loan taken from bank or financial organization brings advantage to the business enterprise. Considering this opportunity, pre-tax loan capital has to be adjusted. Pre-tax profit is adjusted by using the following formula:

Tax-adjusted cost of loan capital = Pre-tax cost of loan capital x (1-Tax rate)

If the 15% pre-tax cost of loan capital of the grocer is adjusted by 30% tax rate the tax-adjusted cost of loan capital will be as below:

Tax-adjusted cost of loan capital = 15% (1-·30)
= 15% x ·70
= 10·50%

b) Cost of Priority Share

Calculating the cost of priority shares is different from calculating the cost of loan capital. Because there are some differences between loan capital and priority shares. Loan capital providers usually get interest for certain terms. On the other hand, priority shareholders get dividend at certain rate for any indefinite time. However, the company is not always bound to give dividend to the owners of priority shares. But, although the company is not bound to give dividend, when it makes sufficient profit it usually gives dividend to the priority shareholders. Therefore, it could be said that cost of priority shares depends on the expected income of the shareholders.

If the ratio of the dividend of priority shares and the money obtained from selling of shares is calculated, we find the cost of priority shares. With the formula it can be calculated in the following way:

$$\text{Cost of priority share} = {}^{\text{Expected dividend of shareholders}}/_{\text{Money got from sale of shares}} \times 100$$

Example: A company is considering to sell 10% priority shares of face value 1000 taka. The company expects to get 820 taka from selling of each share. Using the given information, cost of those shares can be determined in the following way:

$$\text{Cost of priority share} = {}^{100}/_{820} \quad \left\{\text{Note: } \frac{10\,\%\text{ of } 1000}{\text{Sale value per share}}\right\}$$
$$= 12.20\,\%$$

Activity 1: A company issued 8% priority shares. If the face value of each share is 100 taka and money got from selling of each share is 90 taka, determine the cost of priority shares.

c) Cost of General Share Capital

You have known that a company collects capital by selling general shares in the market. On the other hand, the company may finance from the accumulated profit of its business. From all other sources, general share capital is different. First, the company is not always bound to give dividend on equity capital like other sources. Second, even it gives dividend, the amount or rate of dividend is not always equal. For these reasons, determining the cost of general share capital is different from determining the costs of other sources.

The shareholders of a company usually buy shares with the hope of doing profit from dividend and increase of share price. As a result, cost of share capital means the rate of expected income from the dividend of the investors or shareholders and the profit gained from the increase of share price.

Some problems are found in determining the cost of general capital. First, determining future expected dividend is a complex task, as the rate of dividend does not remain fixed like that of priority shares. Second, guessing the future income of a company and rate of dividend increase is another complex task.

For these complexities, there is no single way of determining the cost of general share capital. Based on different guesses, different ways of calculating cost of capital are invented. Two easy ways of calculating cost of general share capital are discussed below:

Zero Dividend Increase Method

It is an easy way of calculating cost of capital. In this method, it is supposed that the company will announce the same dividend in future years as that it has given in the current year. That means, there will be no change in the expected dividend of the shareholders. For example, if a company gives 10 taka dividend per share, it is supposed that the company will give 10 taka dividend to the shareholders in future years also. In this method, if the dividend per share is divided by market price of the share, we get cost of general shares. It is shown in formula in the following:

$$\text{Cost of general share capital} = {}^{\text{Dividend}_1}/_{\text{Share price}}$$

Here, Dividend_1 = Expected dividend at the end of the year

Share price_0 = Present market price of shares

Example: The present market price of share of a company is 110 taka. The company has announced 10 taka dividend per share this year. The cost of general share capital of the company can be calculated in the following way:

$$\text{Cost of general share capital} = {}^{10}/_{110}$$
$$= 0.0909\,\%$$
$$= 9.09\,\%$$

Dividend Increase in Fixed Rate Method

In reality such companies are very rarely found where there happen no changes in giving dividend in future years. Usually, companies give dividend in different years in different rates. Dividends increase in fixed rate is such a method. Here, it is supposed that a company does not give equal amount of dividend every year. However, this method has some inferred conditions.

It is supposed in the conditions that the company's dividend will increase every year and the rate of this increase will remain the same every year. For example, if any company announces 10 taka dividend in the current year and the inferred dividend increase rate is 10%, then -

After 1 year, the expected dividend will be $10\ (1 + 0.10) = 11$ taka
After 2 years, the expected dividend will be $11\ (1 + 0.10) = 12.1$ taka
After 3 years, the expected dividend will be $12.1\ (1 + 0.10) = 13.31$ taka
In this way, every year expected dividend is increased by 10%.

Cost of general share capital can be calculated by applying dividend increase in fixed rate method, with the use of formula, in the following way:

$$\text{Cost of general share capital} = {}^{\text{Dividend}_1}/_{\text{Share price}_0} + \text{Rate of increase}$$

Here, $\text{Dividend}_1 = \text{Dividend}_0 (1 + \text{Rate of increase})$

Dividend_0 = Dividend of this year

Share price_0 = Present market price of shares

Rate of increase = Rate of increase of dividend

Example: A company wants to determine the cost of general share capital. The present market price of share of the company is 150 taka. The company gave 15 taka dividend per share in the year just ended. By analyzing previous records, it is found that the company's dividend increases by 5% every year. The cost of general share capital could be determined in the following way:

$$\text{Cost of general share capital} = \{{}^{\text{Dividend}_1}/_{\text{Share price}_0} + \text{Rate of increase}\} \times 100$$

$$= \{{}^{15(1+.05)}/_{150} + .05\} \times 100$$

$$= 15.5\%$$

Activity 2: A company decides to give dividend at the rate of 12 taka at the end of the current year and it expects that this dividend will increase at 10% in the future years. If the present market price of share of the company is 125 taka, determine the cost of capital.

d) Cost of Reserved Income

One of the sources of financing a company is its own reserved income. The company does not distribute the whole amount of money that it makes profit as dividend to the shareholders, but retains a portion of it in its own fund.

For example, if a company makes a profit of 50 lac taka in some year and out of this money it keeps 25 lac taka in business, this 25 lac taka will be considered as reserved income of the business. Thus, in the later time, financing is made from this reserved income in implementing different investment opportunities or projects. When financing is made from reserved income, it may seem to many people that there is no cost of reserved income. But this concept is wrong. Because although this reserved income apparently has no cost, yet it has an opportunity cost.

Before understanding the opportunity cost of reserved income, general concept of the opportunity cost has to be understood. Suppose that your father has a deposit of 10 lac taka in a bank. One day your brother told your father - father, please give me the 10 lac taka which is kept idle in the bank because I shall run a business. These words of your brother is not correct. Because the money is not kept idle; the bank will give interest at a certain rate on this 10 lac taka. As a result, if your father gives the money to your brother, he will not get the money which he could earn as interest. Thus, the amount of money that is ceased to get as interest is an opportunity cost to give it to your brother's business.

Similarly, if the income of a company is retained without distribution among the shareholders, it has an opportunity cost from the perspective of shareholders. If the company, not retaining as reserved income, distributed the profit among the shareholders, the shareholders could earn extra income by investing it elsewhere. Thus, if the company does not distribute its earned profit or income, the shareholders are deceived of getting income from investing it elsewhere. Here, being deceived of getting income from investing it elsewhere is termed as opportunity cost of the reserved income. For example, if a company distributes the whole amount of its earned profit among the shareholders and the shareholders earn at the rate of 15% by investing it elsewhere, then 15% will be the opportunity cost of company's reserved income.

6.4 Average Cost of Capital

Through the above methods we learned that costs of different sources of capital are different. For example, the cost of loan capital is of one type, on the other hand the cost of share capital is of another type. Then naturally question will be raised that when a business enterprise uses some loan capital and at the same time some share capital, what the cost of capital of the enterprise will then be. The answer is: average of the all. The thing is described with the following example:

Example: A company has 2000 million general share capital, 2000 million loan capital and 1000 million priority share capital. The rate of interest of loan capital is 10% and rate of dividend in priority shares is 8%. The market price of general shares and priority shares are 255 taka and 110 taka respectively. The company has given dividend 13 taka per share to the shareholders this year and the dividend has increased at 4% from the rate the company gave earlier. If tax rate is 40%, what is the average cost of capital of the company?

Solution:

Cost of loan capital = 10% x (1 – Tax rate) = 10% x .6 = 6%

Cost of priority shares = (Dividend per share ÷ Market price of share)

$= 8 \div 110 = 7.27\%$

Cost of general shares $= {}^{13(1+.04)}/_{255} + .04 = 9.30\%$

Now, we are to find out what portion of the total capital of the company is each source of capital. From the given information, it is understood that in the total capital, portion of general shares is (2000/5000) or 40%, portion of loan capital is (2000/5000) or 40% and portion of priority shares is (1000/5000) or 20%. The average cost of capital of the company will be calculated by multiplying the cost of each source by the relevant percentage of these three and then doing total of these multiplications.

That is, average cost of capital = (9.3 x .4) + (6 x .4) + (7.27 x 2) = 7.57%

Exercise

Multiple Choice Questions

1. What the expected income of the investors is called in business?

A) Cost of Capital B) Rate of Profit

C) Interest of Investment D) Source of Financing

2. Which one of the following is one of the sources of long term financing?

A) Commercial Bank B) Gained Dividend

C) Business Loan D) Reserved Fund

3. What is the indirect advantage of cost of loan capital?

A) Increase of Profit B) Decrease of Interest

C) Reduction of Tax D) Increase of Fund

4. Importance is given in selecting capital mix –

i) Highest scope of loan

ii) Desirable loan policy

iii) Least cost of capital

5. Nannu Mia starts pharmacy business with 2 lac taka loan at 12% interest. If tax rate is 12%, what is his cost of tax-adjusted loan capital?

a) 10.56% b) 12%

c) 13.44% d) 24%

6. Shobnom Ltd. collects capital by selling 9% priority shares of 5000 taka each at 10% reduction price. What is the cost of capital of Shobnom Ltd.?

a) 9% b) 10%

c) 11.11% d) 19%

Read the following stimulant and answer question numbers 7 and 8:

Total capital of Mr. Tutul's business is 10 million taka of which 60% is his own finance and the rest is loan at 15%. Getting an investment opportunity of 20% profit, he changes the capital structure. As a result, an opposite relation is created between loan and own finance.

7. What is the loan capital of Tutul's business at present?

a) 20 lac b) 40 lac

c) 60 lac d) 75 lac

8. In changing the capital structure, Mr. Tutul has considered –

i) Opportunity cost of financing

ii) Average cost of capital

iii) Least cost of capital

Which of the following is true?

a) i and ii b) i and iii

c) ii and iii d) i, ii and iii

Short Questions

1. What is cost of capital?
2. What is meant by expected loan policy?
3. What is meant by capital mix?
4. Write out the formula of cost of tax-adjusted loan capital.
5. Explain the opportunity cost of reserved income.

Creative Questions

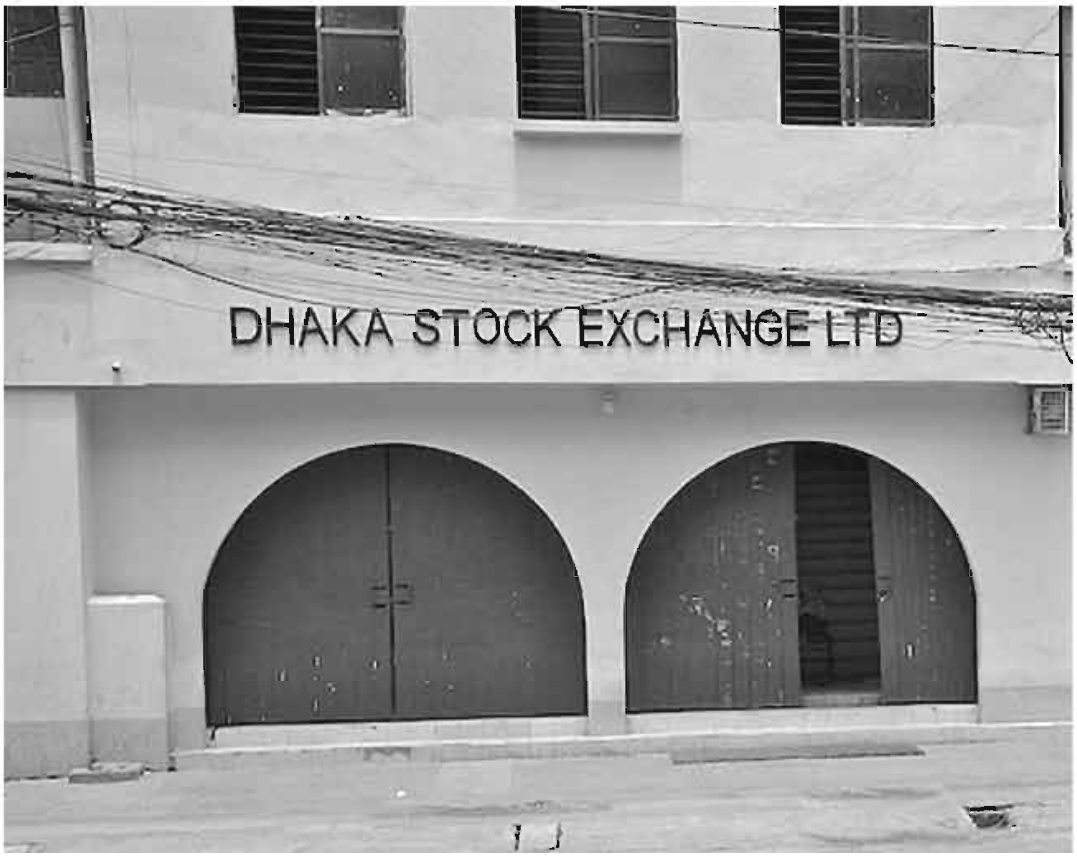
Paid capital of Priyonti Textiles Ltd. is 100 millions taka, of which general share capital of per share 10 taka is 50 millions taka, 6% priority share capital is 30 million taka and the rest is loan capital at 8% interest. In 2012, the company decides to give 1 taka dividend per share and to increase it every year at 10%. Besides, it takes initiative to repay the loan by a large portion of profit.

a) What is the rate of interest called in business in the case of loan capital?
b) Explain – 'As much the investment is risky, so much higher is the expected income'.
c) Determine the average cost of capital in Priyonti Textiles Ltd.
d) Evaluate whether it will be profitable for the company to repay the loan with the profit.

Chapter Seven

Share, Bond and Debenture

Share, Bond and Debenture issued by companies are taken as different tools of investment for the investors. Each of these tools of investment used as sources of investment has its individual features, advantages and disadvantages. Expected income and risks of the investors from these tools of investment are different. So, an investor should know about different sides of each of these tools of investment before taking his decision for investment. In this chapter we shall be able to know about these tools of investment from the perspectives of the investors.



After reading this chapter we shall be able to:

- describe the concepts of share, bond and debenture.
- classify different types of shares.
- identify the comparative differences among different types of shares.
- describe the differences between bond and debenture.
- explain dividend policy.

7.1 Introduction

In the previous chapters you have known about general share, priority share, bond and debenture as sources of financing in business firms. These tools of financing issued by companies are considered as sectors of investment for the investors. An investor can invest his money in different sectors. Assume, your father has 10 lac taka. He can, according to his wish, put it in a bank as fixed deposit or he can invest it in one or more tools of investment - general share, priority share, bond and debenture issued by companies. As sectors of investment, each of these has its own special features. Expected income and risks of the investors from each of these tools of investment are different. Special features and advantages-disadvantages of each of these as sectors of investment and their comparative evaluation have been discussed in the following paragraphs.

7.2 Classification of Shares

Selling of shares is an important source of collection of fund and capital of a public limited company. Shares are the small part of huge capital. Buying shares can encourage the small investors. Thus small investors become the owner of the company. To attract the investors, the company issues different types of shares. Different kinds of share are described below.

7.2.1 General Share

The voluminous total capital of the company is divided into small units and those are sold as shares. After gathering minimum capital with the approval of the government, applications are invited from the public through giving an advertisement in the newspapers containing a paper of statement with information about the company. When applications submitted are much in number, shares are distributed by lottery. As a result, small investors also can participate in investment by buying shares. They are indeed the owners of the company. If the company earns profit, it is distributed among them as dividend. The invested money of the shareholders is not refundable. However, if the liquid money is needed, the shareholders can sell these shares in the secondary market (such as: Dhaka Stock Exchange) and if the price is increased there, they get profit. Usually, in the cases of profitable companies, shareholders get dividend on regular basis. However, the rate of giving dividends is not pre-fixed. Giving dividends is also not mandatory for the company. If no profit occurs, dividend is not usually given. And even if the company makes profit, total amount of profit is not distributed as dividend. If the company wishes, it can give dividends at

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any rate; besides it can give no dividend also. But in that case, if the company cannot give dividend to the shareholders, the price of the shares is decreased in the secondary market, which is not good for the company.

Buying shares is a risky investment for the investors. Share issuing companies are not always bound to give dividends to the shareholders. If the company cannot make sufficient profit in a year, no dividend is given to the shareholders that year. Besides, when the company is closed, claims of the general shareholders are met after meeting the dues of the creditors and priority shareholders from the money got by selling the assets of the company. As a result, if there is no money left after paying all dues, general shareholders may have the risk of getting no money back for their investment.

For these reasons, investment in general shares is considered a comparctively risky investment. However, as it is a risky investments so there is the also possibility of making more profit from such shares. If an investor decides to invest with clear knowledge and good calculations, general shares may become a good source of investment for him. As a tool of investment, general shares have some special features. Those are described below:

a) General shares provide ownership of the company to the share investors. As a result, as an owner he has the legal rights on its profits earned and its assets.

b) General shares give full authority to its owners to control the company.Shareholders control the company by applying their voting right in taking important decisions.

c) General shares are easily transferable. The investor according to his wish can handover the shares at his ownership at any time.

As a tool of investment general shares have some advantages and disadvantages:

Advantages

a) **More Income:** General shares can be a source of good income if an investor invests his money with clear knowledge and good calculations. The income earned by the investor from other tools of investment like priority shares, bonds and debentures is fixed. But income from general shares is not fixed. As a result, when the company earns more, the income of the investors also increases.

b) **Limited Liability:** The owners of the general shares jointly bear the risks of the company. The total risks of an investor are at no circumstances bigger than his invested money. For example, suppose an investor has bought 100 shares of a company and the face value of each share was 10 taka, so his total liabilities may be at best 10 x 100 = 10,000 taka.

c) **Liquidity:** General shares are well considered by the investors as liquid money.The investor according to his wish can collect money at any time by selling the shares at his possession. However, the liquidity of shares of all companies is not equal. Usually, the liquidity of shares of big and good companies is higher than that of other companies.

Disadvantages

a) **Risk:** Investment in general shares is comparatively risky. There are many speculative investors in the share market. As a result, there is risk of incurring loss if the investment is not guided by knowledge and good calculations.

b) **Rights in Profit and Property Distribution:** In distribution of profits, the company has to pay first all the liabilities payable to the owners of priority shares, bonds and debentures; and the general shareholders have rights on the remaining profits. In this way, when the company is closed, after paying all the liabilities of the company with the money got by selling its assets the shareholders will distribute among themselves the rest of the money That is, in both the cases the rights of the owners of priority shares, bonds and debentures get priority over the rights of the general shareholders.

7.2.2 Priority Share

Investment in priority shares is considered a good tool of investment for those investors who expect income at a certain rate from their investment in shares. However, in our country priority shares are not found so much. Like that of general shares priority shares also have some own features and characteristics:

a) **Ownership:** Priority shareholders are not considered as full owners of the company. They are considered in between the owners of general shares and the owners of bonds and debentures.

b) **Transformability:** For many priority shares, alternative options are there to transform them into general shares. So, if the investor wishes, he can change his status to an owner of general shares.

From the perspective of the investors, priority shares have some advantages and disadvantages. The advantages and disadvantages of priority shares are discussed below:

Advantages

a) **Income at Certain Rate:** The owners of priority shares get dividend at some certain rate. As a result, the shareholders have less uncertainty of income.

b) **Priority on Profit Income:** While giving dividends, owners of the priority shares get priority over the owners of the general shares.

c) **Claims on the Properties:** At the time of liquidation or closure of the company, claims of the owners of priority shares are first considered before meeting the claims of the owners of general shares. But of course, their claims are met after fulfilling the claims of the owners of debentures.

Disadvantages

a) **Control:** The priority shareholders do not have any voting right. So they have no control over the company.

b) **Limited Income:** Priority shareholders' rate of income is fixed. Hence, priority shareholders do not get any share of extra profits made by the company.

Activity: Make a comparative evaluation between general shares and priority shares from the perspectives of an investor.

7.2.3 Deferred Share

Defferred Shares are those shares for which owners receive dividends after dividends have been distributed to all other classes of shareholders. In case of company closure the demands of these shareholders are fulfilled at the end. Generally company founders or promoters buy these types of shares. For this reason, it is also called promoter share.

7.2.4 Right share

When old shareholders get priority in shares in the case of selling shares after the forma¬tion of company, these shares are called right shares. It means when in later time the company sells shares to collect fund, and the old shareholders

preserve the rights of buying those shares at that time, those sellable shares are called right shares.

7.2.5 Bonus share

When company's undivided earnings are not given out in the form of dividends, but are converted into free shares, these are called bonus share. Bonus shares are shares given to the old shareholders in a proportionate rate.

7.3 Bond

Bond is another tool of investment for the investors. You have known earlier that bond is a document or agreement through which a company gathers loan capital from the investors. In our country most of the companies gather loan capital through taking loans from banks or other financing organizations. As a result, bond is not yet so much familiar in our country.

Bond has some particular features and characteristics of its own from the perspectives of investors. Those are discussed below:

a) **Mortgase:** A company usually keeps its property or documents as mortgase against bonds. As a result, if the company is not able to meet the claims of the investors, they can realize their money by selling these properties.

b) **Date of Maturity:** A bond issued by a company has a certain date of maturity.On that date of maturity the investor gets back the written value as mentioned in the bond.

c) **Creditor:** Bond owners are considered as the creditors of a company. So they have no voting right.

d) **Transformability:** Many a time, a company may sell transferable bonds to the investors. In such cases, if the bond owners wish, they can transform the bonds at their possession to a certain number of general shares as mentioned in the conditions of the debenture.

Advantages

a) **Rate of Interest:** As the rate of interest is fixed, the income of the investors in bonds is fixed. As a result, they have less uncertainty of
b) income.However, sometimes the rate of interest may also change.

Less Risk: As immovable or other properties are kept as mortgage against bonds, the risk of investors in bonds decreases.

c) **Rights on Profit and Properties:** Bond owners are given interest on their investment at the very first from the income of the company. On the other hand, at the time of liquidation or closure of the company, claims of the bond owners are first met before meeting the claims of others. That is, the claims of bond owners get priority over the claims of the general and priority shareholders.

Disadvantages

a) **Less Income Rate:** As there is less risk in bonds compared to general shares and priority shares, the rate of income of the bond owners is less.

b) **Control:** As like that of priority shares, the bond owners do not have voting right, they cannot involve themselves in the control of the company.

7.4 Debenture

Debenture is a bond without mortgase. So, most of the characteristics of bonds prevail in debentures. Like bond and priority shares, debentures are also not found so much in our country.

Compared to bond, its special feature is there is no mortgase against debenture. As there is no mortgage against debentures, investors do not buy debentures of all companies. Investors usually invest their money in debentures issued by big renowned compames.

Advantages and Disadvantages of Debenture

As a tool of investment, some advantages and disadvantages of debentures are as follow:

Advantages

a) **Regular Income:** Like that of bonds, an investor gets a regular income at some fixed rate from debentures.

b) **Fixed Term:** Debenture is popular to many investors for its fixed term.

Disadvantages

a) **No Security or Mortgage:** Since there is no mortgage against a debenture, it is risky.

b) **Control:** Like that of bonds, an owner of debenture does not have any voting right. Hence, owners of debenture have no control in the operation of the company.

c) **Rights in Profit and Property:** An owner of debenture enjoys an equal status of general creditors. So, before paying interest to the owners of debenture, interest of the bond owners is paid from the income of the company. In this way, at the time of liquidation or closure of the company, claims of the debenture owners are met after meeting the claims of the bond owners.

7.5 Share Market of Bangladesh

As a capital gathering market, share market plays an important role in the economy of any country. For this reason, general people or an investor expects that share market should run smoothly. With the passage of time, the share market of Bangladesh is gradually developing through different changes. Investment in share market is a risky investment. Therefore, one should not invest there without correct ideas about investment in share market. Here, there is risk of getting loss with the possibility of making profit. Before investing in the share market, an investor should analyze different information such as earnings per share (EPS), type of business, management of the company, net asset value (NAV), etc. by collecting the annual financial statement of the company. An investment decision should be taken after gathering much knowledge about the industry sector and economic condition of the country in addition to the information of the companies. If necessary, advice may be taken from the market experts. But at no condition, an investor should take investment decision on the basis of rumour.

For well performance of activities of buying and selling of shares of share-issuing companies and investors, an well-established organization is needed. Such an organization is called stock exchange. Stock exchange helps companies gather fund from general people or organizations and arranges a fixed place for the investors for buying and selling of shares. There are two stock exchanges in Bangladesh:

1) Dhaka Stock Exchange Limited
2) Chittagong Stock Exchange Limited

In the two stock exchanges as mentioned above, general shares, mutual funds, debentures, bonds, etc. of different companies are bought and sold. For the convenience of the investors for taking investment decisions, the shares of the companies scheduled in the stock market have been classified in different types as A, B, G, N, Z, etc.

Usually indexes are used to understand the trend or overall condition of the share market. For example, in Dhaka Stock Exchange the following three indexes are used, namely:

a) Dhaka Stock Exchange Broad Index (DSE Broad Index)
b) DSE Shariah Index
c) DSE 30 Index

In this way, in Chittagong Stock Exchange three indexes are used, namely:

a) CSE All Shares Price Index
b) CSE Selective Categories Index and
c) CSE 30 Index

Indexes of share market rise and fall everyday and every time. These rise and fall provide information about the trends and directions of the market. The rises and falls of these indexes depend on the rises and falls of share prices of the companies scheduled in the share market. If the prices of most of the shares increase, the indexes increase; again if the prices of most of the shares decrease, the indexes decrease.

7.6 System of Investment in Shares

Investors can invest in share markets in two ways:

a) Through Primary Market
b) Through Secondary Market.

a) Primary Market: Primary market means that market where a company announces the initial public offering (IPO) for selling its shares. When a company sells its shares in the market for the first time, that offer for selling is called IPO. If an investor buys shares by participating in the IPO offered by any company, it is considered that he has bought primary shares.

b) Secondary Market: After selling shares for the first time by a company to the investors, the investors can buy and sell shares among themselves. The market where investors buy and sell shares among themselves is called a secondary market.

7.7 Dividend and Dividend Policy

The gains or profit of a company is the income deserved by the shareholders. So, the gains or profit is distributed among the shareholders. Usually, a company does not distribute the full amount of gains or profit among the shareholders.

It retains a portion of the gains or profit for financing in the affairs of business in future, and distributes the rest amount among the shareholders. The portion of gains or profit which is distributed among the shareholders is called dividend. A company can give dividend usually in two ways:

a) Cash Dividend
b) Stock Dividend or Bonus Share

a) Cash Dividend: The dividend which is paid in cash money is called cash dividend. For example: suppose, that a company announces 10% cash dividend. An investor holds 500 shares of that company of each share priced 10 taka. That investor will get 10% x 5000 or 500 taka as cash dividend.

b) Stock Dividend: Many a time, a company gives stock dividend instead of cash dividend or stock dividend side by side with cash dividend. The company usually gives stock dividend in proportion with shares issued at present. As a result, the number of shares of the company increases. Suppose, that a company has at present 10 millions shares of face value 10 taka. The company announces 50% or 2:1 portion of stock dividend. As a result, if an investor has 500 shares at present, after getting the dividend the number of his shares will be 750. In this way, total shares issued by the company will be 15 million.

Dividend Policy

A company has to take dividend-related various decisions every year, for example, what portion of profit will be given as dividend, whether cash dividend or stock dividend will be given, etc. For taking these decisions, every company has particular policy which may give directions to give dividend. These policies are called dividend policies. Usually, three types of dividend policies are found, such as:

a) **Fixed Money Dividend Policy:** According to this policy, every year equal amount of money is given as dividend. For example, if a company gives 10 taka dividend per share every year, it will be called fixed dividend policy. Whatever more amount of money a company may earn, it gives same amount of dividend as was given in previous years. However, in this system the amount of dividend usually does not decrease.

b) **Dividend Payment Ratio Policy:** According to this policy, a company decides what portion of its profit it will give as dividend. As per the decision, every year the company gives dividend proportionately.

For example, suppose, a company decides to give at 50% proportional rate. As a result, if in one year the company earns 20 million taka, then it will give the shareholders 20 millions x 50% or 10 millions taka as dividend.

c) **Fixed Dividend along with Additional Dividend Policy:** This is an ideal dividend policy for those companies which have no fixed or regular income. According to this policy, a company gives an additional dividend every year in addition to a minimum fixed dividend. As this dividend policy is much flexible than other dividend policies, many companies adopts this policy.

Exercise

Multiple Choice Questions

1. A source of investment of capital –

i. Share
ii. Bond
iii. Debenture

Which of the following is true?

a. i and ii
b. i and iii
c. ii and iii
d. i, ii and iii

2. Which one is a disadvantage of priority shareholders?

a. Priority on profit
b. Limited liability
c. Limited income
d. Income in a fixed rate

3. In how many types the shares of companies scheduled in the stock exchange are classified?

a. 2 b. 3 c. 4 d. 5

Read the following stimulant and answer question numbers 4 and 5:

Mr. Habib bought shares of 'Bandhab' company being attracted on seeing its first ever offer for selling the shares. After few years, as he falls in financial crisis, he is willing to go to market to sell them.

4. Where did Mr. Habib collect 'Bandha' company's share from?

a. Head office of the company
b. Securities and Exchange Commission
c. Primary Market
d. Secondary Market

5. Which market is logical for Mr. Habib to sell his share?

a. Head office of the company
b. Securities and Exchange Commission
c. Primary Market
d. Secondary Market

Short Questions

1. In what policy dividend is given a less amount than the income?
2. For what kind of activity of the business, a portion of the profit is reserved for use in future?
3. Which is used to understand the overall condition of a share market?
4. As what sort of market a share market plays its role in the economy of a country?

Creative Questions

1 After retirement from government service, Shahinur gets a few lac taka in hand.He is willing to invest this money in companies. He wants to be such an investor so that he will not have to get any interest and can participate in taking important decisions of the company. So he has collected information of the activities of 'Surjadoy' and 'Soikat' companies, and now he is doing analysis of the information.

a. Whom do the owners of debenture enjoy equal status of?

b. By paying which kind of dividend the number of shares of a company increases? Explain.

c. Which information of 'Surjadoy' and 'Soikat' companies is Shahinur analyzing? Explain.

d. What type of investor you think would be wise for Shahinur to be? Analyze.

Chapter Eight

Currency, Bank & Banking

By reading this chapter, students will learn about the history of currency, its evolution and present condition. Moreover, they will also know about the uses and necessity of currency and the relation between currency and banking.

After reading this chapter students will also be able to improve their idea about creation of bank, banking system and bankers as a result of multiple uses of currency. In the addition to a brief discussion on the present banking system of Bangladesh and its history, of banking business and evaluation has also been discussed in this chapter

After reading this chapter we shall be able to:

- explain currency and its the history of currency.
- to identify relationship between Bank, Banking and Banker.
- describe the history of bank business and its evolution.

8.1 Currency and Its History:

The necessities of human beings, his activities and social bonding had increased since the creation of them and the dawn of civilization. At the beginning, the necessities of human beings were very limited and they met those necessities by exchanging additional commodities after meeting his demand. This "exchange of commodities" is known as Barter System. In course of time, with the increase of human beings' knowledge, intelligence and their activities specially the 'Barter System' expanded much and along with them their necessities started to increase. The horse carriage, boats and in later times the ships made an important contribution behind it. After solving communication problems, the efforts of collecting the necessary commodities were increasing from different geographical positions. From village to village, from village to town and from country to country, the necessity of the medium of exchange in case of exchanging commodities was felt intensely. Besides the medium of exchange, the piling of deposits and the measure of value of commodities had played a great role for the creation of currency.

The history of currency is very amazing. It is seen from the pages of history that coins of different types and shapes were used in different countries in different times. In different ages the uses of kowri, the teeth of shark, the teeth of elephant (ivory), stone, pearl, burnt clay, bronze, silver and gold were used as coins (as the medium of exchange).

Pictures: Coins of different times made of bronze, pearls and the teeth of elephant.

The uses of metal coins did not last for a long time because of some difficulties in their uses, carrying, transportation and other necessities. The use of metal coins increased with the increase of world population. So the supply of metal became short; moreover because of the uses of gold and silver jewelries and other objects, use of the paper money was introduced in the nineteenth century. Though at present metal coins are being used with the paper money, yet the uses of metal coins are gradually becoming limited.

Use of paper money has greatly increased because of availability of papers, easy carriability and compatibility to different types of security measures.

8.2 What is Currency?

On the basis of function, by the term 'currency' we mean a medium of exchange which is acceptable to all and which works as a scale in measuring values and medium of savings. From this definition, we can understand that currency has the following functions:

- It works as the medium of exchange. Currency can be used for any kind of transaction. For example: You spend money to buy a book. Here the currency works as the medium of exchange; this is the main function of currency.
- It works as the means of savings. It means that when you want to save for future, you can make this savings through money. If there is no existence of money, your savings would very difficult.
- It works as the measure of values. It means, it is a function of currency to determine the price of economic goods or service. Because of existence of money, we can easily determine the daily wages of a labour; we can determine the price of book as Tk.100 and the price of 1 kg rice as TK.25. In these ways the economic activities become easier for us.

8.3 Relationship between Currency and Bank:

The social bonding and economic activities increased with the development of civilization; as a result transaction among man and activities of exchange also increased. Just after the introduction of currency, the necessity of banking system was needed. Hence, currency is called the mother of banking system. From the very start of evolution of banking system to till now, the bank has been using the currency as the main element of its business.

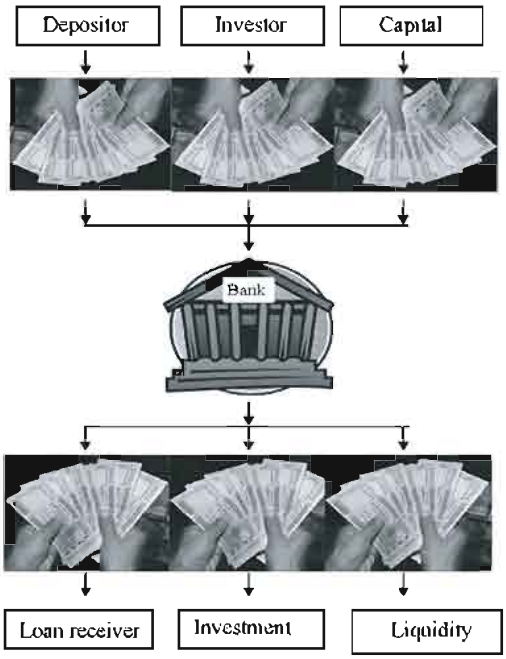

Figure 8.1: The diagram shows how a bank invests money collected from the investors and depositors

A bank forms its deposit by collecting surplus money from people as savings. For depositing money, the depositor is offered a fixed rate of interest or profit. The bank earns profit by lending these deposits as loan charging higher rate of interest to the borrowers. As the bank cannot run without currency, so on the uses of currency is limited without the bank.

8.4 Bank, Banking &Banker:

Bank:

It is difficult to give a definite account of the origin of the term 'Bank'. The literary meaning of the 'Bank' is the storage of particular things, treasury, and even this term is used to mean a long table. According to some economists, the term 'Bank' is originated from the ancient Latin words *Banco, Banak, Banque, Bancus* etc. According to the followers of this opinion the Latin meaning of the term 'Bank' is bench or long table used for sitting on, for which support is found in the pages of history.

In the economic history of Middle Age, it is found that some people of the Lombardy Street in Italy used to run the business of depositing, lending and borrowing money using a long tool or bench. So, more supports are found on the Latin origin of the term 'Bank'.

To give the definition of bank we can say that bank is a financial institution which collects the deposits from people against interest and makes investment for earning profit and is bound to return the money to the depositors at the moment they ask or after a fixed time.

Activity : Students will act out in group to show bank and banking and the role of bankers.

Banking:

According to Oxford Dictionary, "Bank is a safe organization for depositing, withdrawing money and giving loan". Therefore, the term 'Bank' gives the elaborate concept about the banking activities. It means all the legal activities of a bank are known as banking.

The main activities of banks, also known as banking, are mentioned bellow:

- **Deposit collection from the people:** People, whose income is greater than their expenses, are the potential depositors. Bank collects deposit from them.
- **Loan sanction:** Banks sanction loans when the capital provided by the owners/ intrepreneurs is less than the capital necessary for any business firm. Banks sanction loan to overcome this deficiency.
- **Discounting and approving Bills of Exchange:** Another activity of bank is discounting the receivables and approving the bills payable.
- **Finance in foreign trade and in letter of credit:** Exporters and importers are required to convert home currency into foreign currency and foreign currency into home currency. This important activity is performed by a bank. Again through the letter of credit, a bank ensures the exporter to repay the amount of bill on behalf of the importer. It is also a function of the bank to certify the bill of exchange in favour of importers.
- **Money transfer:** It is really difficult to transfer money from one city to another, especially between two countries due to the presence of different currencies. Banks carry out this task in an easy way against a minimum cost.
- **Protection of valuables and documents:** Theft or dacoity might happen when someone keeps valuable items such as gold jewellery with hm/her.

- **Asset management and financial advice:** It is also the responsibility of banks to provide different advice regarding business upon requests from clients and manage clients assets such as to collect rent on behalf of the client.

Banker:

People directly involved in the banking business are called bankers. The two words 'Bank' and 'Banker' are essentially interrelated. Since running a bank or banking activities is not possible on one's own, banking business is run by people with education and training on banking.

8.5 History and Evolution of Banking:

From the first light of civilization, man used to exchange their excess goods to fulfill daily necessities. The custom of exchanging commodities existed for a long time. At present Barter system exists in a small scale. After introduction of money, banking activities began to start from the necessity of business, transaction and protection of money. In 5000 B.C banking system took place for the first time. then Babylonian Civilization, Roman Civilization, Chinese Civilization, Greek Civilization continued to contribute to the development of banking till 400 B.C. In India "The Hindustan Bank" was established in 1,700 A.D as a modern bank. After that in 1935 "Reserve Bank of lndia" was established as the guardian of all Indian banks. After the partition of Bengal, during Pakistan regime in 1948 the central bank of Pakistan the "State Bank of Pakistan" was established, and this bank lead the expansion of banking business and commercial institutions of East & West Pakistan.

In the very beginning of our independence (which was earned through liberation war) on 26 March, 1972 (Effected from 16 December, 1971) the 'Bangladesh Bank; the central bank of Bangladesh was established by president's ordinance. After the liberation war, 1090 branches of 12 banks were in Bangladesh. Just after our independence, banking business faced a huge crisis because all the owners of the banks were non- Bengali and all the head offices of the banks except 'Eastern Banking Corporation' & 'Eastern Mercantile Bank' were in West Pakistan.

Bangladesh Bank started its role of guardianship as central bank in currency circulation, credit control & banking business and nationalized all banks for which the 6 banks were created. Those are Sonali Bank, Agrani Bank, Janata Bank, Rupali Bank, Pubali Bank and Uttra Bank.

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In the next time gradually all the banks were denationalized except Sonali and Agrani Bank. In the 70's it was realized that the nationalized banks cannot play its expected role. Denationalization started in the 80's. After the decade of eighty in the 90's permission was given to establish few new banks in the private sector.

At present 4 government, 4 specialized, more than 30 private banks are running business in Bangladesh.

Exercise

Multiple Choice Questions:

1. With the evolution of civilization why human beings needed to exchange products with one another?

A) to meet the demand
B) to strengthen social bondage
C) to transport products
D) to develop communication system

2. What is the reason behind introduction of paper money?

i) an alternative use of metal
ii) long existence of metal coin
iii) scarcity of metal

Which one of the following answers is correct?

A) i and ii
B) i and iii
C) ii and iii
D) i, ii and iii

Read the following stimulant and answer question numbers 3 and 4:

During a light conversation with her grandmother, Seema came to know that in the past, people would exchange their products with each other according to their needs, but it was not possible to exchange all kinds of products.

3. People on those days would exchange products to –

i) strengthen their social bondage
ii) meet their demand
iii) exchange additional product

Which of the following statements is correct?

A) i and ii
B) i and iii
C) ii and iii
D) i, ii and iii

4. Through which problems of barter trade is removed?
A) invention of ship
B) introduction of metal coins
C) improvement of geographical connectivity
D) increase of people's everyday demand

Short Questions:

1. Where did the word 'Bank' originate from?
2. What is Letter of credit (LC)?
3. For whom the function of money transfer is important?

Creative Questions:

Azmi Noor is a student of class nine in business studies group. Her father is a high official of Bank. She sees that her father is always busy with banking activities.

a. What is Barter System?
b. Is there any relation between currency and bank? Explain.
c. Banking and Banker are corelated with each others. Explain.
d. Discuss the role for the creation of currency in evolution of Banking.

Chapter Nine

Banking Business and Types

Students will have an idea about formation of banks, their scopes, objectives and management system from this chapter. A brief concept on different types of banking system has been disseminated here by classifying them. Besides, an idea of governmental and non-governmental banking management has also been given in a limited scope. This chapter will also be useful to have a primary concept of banking.

Picture: Transaction at a bank

After reading this chapter we shall be able to :

- describe the objectives of banks.
- identify the principles of banks.
- analyze the classifications of bank.
- recognize the differences between governmental and non-governmental banks.

9.0 Introduction

Size, structure, objectives and formation of banking system have changed a lot with the progress of time. Banking has passed through different phases of change namely traditional banking, modern banking and electronic banking. Besides, in a competitive market, innovative banking products and services are being provided to adapt with the needs of the era and clients.

9.1 Objectives of Bank:

Objectives of banking differ from one another due to the difference of groups involved with banking. We will now discuss the objectives of banks from the different viewpoints.

(A) Objectives of banks from the owner's and managing authority's perspective
(B) Objectives of banks from government's and state's perspective
(C) Objectives of banks from the client's perspective

(A) Objectives from the owner's and managing authority's perspective:

1. **Investment of fund and earning profit:** Making proper investment of the money collected from savings is one of the main objectives of a bank. To achieve this objective, share holders have to earn anticipated rate of profit. Every investment has opportunity cost, and at least this amount of profit should be earned. Otherwise the bank's objective remains unachieved.
2. **Achieving goodwill:** If goodwill can be achieved through banking efficiency, image of the owners is protected.
3. **Participation in development:** By investing in different sectors, banks actively participate in the development of production and national income of the country. In this way, owners become successful in their investment. Providing service to the client is another objective of banks.
4. **Social contribution:** Spending a portion of profit in social development and social activities through the different social activities is one of the objectives of bank.

(B) Objectives from government and state's perspective

1. **Cirulation of notes and currency :** The central bank issues notes and currencies. Bangladesh Bank issues currencies as the central bank of Bangladesh. Bank cheqes can be used as a medium of exchange and an alternative to currency, which helps the government's job of currency circulation.

2. **Capital Formation:** A bank collects scattered savings of the society through deposit collection and provides loans to large industries. Motivating people for savings and forming capital is one of the main objectives of the banks.
3. **Investment and Industrialization:** Before sanctioning any loan, a bank analyzes the prospect of business of the project. The government keeps on presenting priority sectors to the people and the nation. Banks participate with the government in achieving this objective through sanctioning loan on priority basis.
4. **Controlling Money Market:** Both the government and the central bank always control money market in order to control inflation. However, the central bank alone cannot do this alone. Commercial banks extend their support to the government and the central bank.
5. **Employment Generation:** Eradication of unemployment problem is one of the objectives of banking sector. The projects in which banks finance can create employment. For example, by making investment in a labour intensive project instead of capital intensive project, a bank can create employment and thus can help the government.

(C) Objectives from the client's perspective:

1. **Deposit:** Banks create deposit by collecting small savings of their clients.No interest is offered in current account but lots of services are offered. In a Saving Account, a client receives 5% to 7% interest and deposits can be withdrawn at any time. In a Fixed Deposit Account, interest rate is 12% to 13% but if deposit is withdrawn before the expiry of the term, this account will not be profitable. Duration of Fixed Deposit Account is any period starting from one month. Providing support to the depositor to form any amount of deposit is one of the basic responsibilities of banks.
2. **Security:** Giving security to the client's valuables is another objective of bank.In our society keeping these valuables at our home is not secured.
3. **Advisor and Consultant:** Before sanctioning the loan, a bank evaluates the business prospect of the project. Profitability of the business is as important for the loan applicant as it is for the banks. Professional efficiency of the bank strengthens the client's concept of the profitability of the business. A bank sometimes acts as an advisor when any expansion or modernization is required for the business. Various other financial advice is provided by banks as well.

4. **Representative and Trustee:** In exchange of receiving value, a bank acts as a representative/trustee to its clients. Banks take part in different business contract on behalf of clients, sign the bill of exchange and collect house rent.
5. **Money Transfer:** Banks transfer money from one place to another within and outside the country according to clients' requirements.
6. **Development and easy of standard of living:** Banks introduce various new and innovative products and services to improve people's standard of living. Using credit cards buyers can purchase products without cash for a specified time period. Cash can be received 24 hours a day by using ATM machine. Now-a-days 24 hours banking activities are going on in every big city all over the country. This service has been made even easier through mobile banking and internet banking.

9.2 Structure of a Bank:

According to the regulation of the central bank, a private bank can be established with minimum 2 and maximum 13 directors. But to set up a bank own by a public limited company, the minimum number of members is 7 and maximum is unlimited. Establishment of a commercial bank is not possible in Bangladesh without approval of Bangladesh Bank. If any bank conducts business in Bangladesh without approval of Bangladesh Bank by the names of cooperative bank or any other name, it is considered illegal.

9.3: Principles of Banking Business

Banking is a risky business. Risk cannot be avoided without establishing a dependable and efficient management system. Every bank should follow some fundamental principles to avoid the risk which arises in using others' money in banking, which are stated below:

1. **Principle of Security:** An important principle in banking is ensuring the security of client's money and the money that has been given as loan. Before sanctioning loan, a bank should evaluate the financial solvency and honesty and then keep security against the loan.
2. **Principle of Profitability:** Earning sufficient amount of profit is another principle of banks. A bank provides lower rate of interest to the depositor but charges a higher rate of interest to the borrowers. The difference between these two rates is the main portion of the profit percentage of banking.

3. **Liquidity Principle:** When a depositor wants to withdraw money from bank account, the bank is bound to pay the amount in cash. Again, if the bank keeps a maximum portion of deposited money as liquid, it will lose its investment capacity and cannot earn profit. So, proper banking business means maintaining a reasonable amount of liquid asset so that the bank can satisfy both its depositor and the borrower. It is one of the most important principles of bank.
4. **Financial Solvency:** Financial solvency is urgently required to run the business properly: Due to the lack of financial solvency, a bank may become bankrupt. Principle of financial solvency is a very important principle in banking.
5. **Principle of Efficiency:** Success of business mostly depends on the efficiency of board, officers and staffs involved in the management. In this competitive world efficiency is a very important principle.
6. **Principle of Providing Services:** Providing different kinds of services to clients is an important responsibility. Development of bank is possible through these kinds of services for the clients.
7. **Principle of Publicity:** Expansion of business is possible by adopting attractive, understandable and suitable advertisement and publicity. Through publicity, a bank can exhibit different ways of banking services.
8. **Principle of Secrecy:** An important way of earning trust of the clients is keeping all information of the clients secret. So it is an important principle of banks to keep privacy.
9. **Principle of Goodwill:** Creation of Goodwill through efficiency, secrecy, services is also an important principle.
10. **Principle of Investment :** The principle that is followed as the terms of investment (size of investment, duration,interest rate etc.) is called the investment principle. Successes of banks mostly depend on appropriate principle of investment.
11. **Principle of Development :** Besides making profits, another important principle of banks is to help and support in the development of economy of the country.
12. **Principle of Objective :** Before giving any loan, a bank analyzes the productivity and profitability of proposed projects. In this situation, it is a noteworthy principle of a bank to refuse loans in the cases of unproductive and uncertain projects.

13. **Principle of Economy:** High profit with low cost is an important principle of a bank. Profit maximization is achieved through cost minimization.
14. **Principle of Trust :** A precondition of effective banking business is clients' trust on bank. To earn this trust, banks follow different principles of honesty and trust. Depending on this trust, people keep their money and valuable assets (locker service) in the bank.
15. **Principle of Cautiousness :** It is essential for a bank to use the pronciple of cautiousness in the case of investment so that uncertainty and risk can be avoided.
16. **Principle of Specialization:** In case of foreign trade, loan sanction, note issue etc. banks follow the principle of specialization. This increases functional efficiency and quality.

9.4 Classification of Bank:

On the basis of structure, formation, ownership, registration, region and control, banking business can be classified as per the chart number 9.2:

A) Structural Classification:

1. **Unit Banking:** If banking activities are operated only in a specified location, it is called Unit Banking. Unit banking has no branch. In Bangladesh, there is no tradition of unit banking.

2. **Branch Banking:** If a bank functions by opening one or more branches within or outside the country under a head office, it is called branch banking. The branches have no separate entity and they function under directives and control of the head office. For example: Sonali Bank Limited, Janata Bank Limited etc.

3. **Chain Banking:** When each branch developed through joint ownership operates on the basis of individuality following centralized instructions, it is called Chain Banking. The main objective of chain banking is to serve each other's interest.

A) Structural Classification
1. Unit Bank
2 Branch Bank
3. Chain Bank
4. Group Bank

D) Classification by Ownership
1. Government Bank
2. Private Bank
3. NGO Bank
4. Autonomous Bank
5. Partial Bank

B) Functional Classification
1. Central Bank
2. Commercial Bank
3. Agricultural Bank
4. Industrial Bank
5. Cooperative Bank
6. Investment Bank
7. Savings Bank
8. Mortgage Bank
9. Transportation Bank
10. Small and Cottage Industrial Bank
11. Import-Export Bank

C) Classification By Business Organization
1. Sole Proprietorship Bank
2. Partnership Bank
3. Joint Stock Bank
4. Cooperative Bank
5. State Bank
6. Foreign Ownership Bank

E) Regional Classification
1. Regional Bank
2. National Bank
3. International Bank

F) Classification by Registration
1. Domestic Bank
2. Foreign Bank

G) Classification by Specialized Clients
1. Labour Bank
2. Women bank
3. School Bank
4. Consumer Bank

H) Classification by Control
1. State-controlled Bank
2. Partial-controlled Bank
3. Market-controlled Bank

I) Banks on Basis of Religious Ideology

Diagram: 9.2: Classification of Bank

4. Group Banking: When two or more banks join together and are directed and controlled under a holding company, this banking system is called Group Banking. In such a bank, a larger bank purchases shares of a weaker bank. As a result the weaker bank becomes the subsidiary bank of the larger one.

B) Functional Classification

1. **Central Bank:** Central bank is the custodian, regulator and director of all other banks. It is the life-blood of the whole banking system. It is mainly created to regulate money market. Generally circulation of currency, supply of money and special power of regulating loan are the main functions of central bank. In Bangladesh 'Bangladesh Bank', in England 'Bank of England; in Japan 'Bank of Japan' play the role of central banks.

2. **Commercial Bank:** The bank which collects people's money as deposits and invests it as loan for earning profit is called a commercial bank. For example: National Bank Limited, Dutch-Bangla Bank Limited etc.

3. **Agricultural Bank:** The bank which provides various term-loans and other benefits to the farmers for their agricultural development is called Agriculture bank.

4.**Industrial Bank:** The bank which is established with a view to developing industrial sector of the country is called Industrial Bank. BDBL (Bangladesh Development Bank Limited) is one such bank in Bangladesh.

5. **Exchange Bank:** The bank that is established for settlement of foreign transaction and foreign currency exchange is called exchange bank. Foreign currency exchange and export are the functions of this bank.

6. **Investment Bank:** This bank that sells shares of new companies as an underwriter, offers mid-term and long-term loan, does bridge financing, debenture selling, advises on various trade issues is called investment bank.

7. **Savings Bank:** The bojective of such a bank is to encourage people in saving money by accepting surplus money of people as savings and by giving profit and interest. In this type of bank, one can deposit money at any time and the savings of this bank is managed on the condition of allowing withdrawal for 2 times or using other rules.

8. **Mortgage Bank:** This bank which sanctions long term loan against land security in agriculture or industrial sector is called mortgage bank.

9. **Transport Bank:** The specialized bank which is established in order to develop sector is called transportation bank. This bank supplies loan to manufacture transport, to import spare parts and equipments, to modernize the transportation etc.

10. **Small and Cottage Industrial Bank:** Bank of small and cottage industries offer financial assistance and advice to the entrepreneurs involved in small and cottage industries to encourage them and therby speed up industrialization.

11. **Import-Export Bank:** The bank which provides support in export-import business is called Import-Export bank. Main activities of such a bank are to provide loan for import, assistance by issuing Letter of Credit and monitoring import in addition to provide necessary advices.

Activity : Make a list of cooperation you will seek from different banks according to the need of profession types of work etc. of your locality.

C) Classification by Business Organization

1. **Sole Proprietorship Bank:** This type of bank is controlled and directed under the ownership of one entrepreneur and capital is invested by one person.

2. **Partnership Bank:** The bank which is formed under joint partnership law as joint business is called partnership bank.

3. **Joint Stock Company Bank:** The bank in which capital is formed, directed, and controlled within the scope of Company Law is called Joint Stock Company Bank.

4. **Cooperative Bank:** Bank which is formed and directed under the regulations and acts of co-operative societies is called Co-operative Bank.

5. **State Owned Bank:** Banks which are formed and controlled under the complete ownership of the government are called state owned bank. For example: Sonali Bank Limited etc.

D) Classification by Ownership

1. **Government Bank:** The bank which is established and directed under government ownership is called government bank. For example: Agrani Bank Limited etc.

2. **Private Bank:** The bank which is established and directed under private initiatives, joint ownership and non-governmental initiatives is called private bank. For example: Jamuna Bank Limited, One Bank Limited etc.

3. **Specialized Bank:** Grameen Bank is such kind of Bank. Poor people of remote areas would not receive any banking service or loan because sanctioning loan without security was not possible by traditional banks. By creating micro credit or loan without security money, Grameen Bank has brought these people under the scope of banking.

4. **Joint Ownership Bank:** Banks which are established under the ownership of both government and non- government are called Joint Ownership Bank. In our country Bangladesh Commerce Bank Ltd is such kind of bank.

5. **Autonomous Bank:** Government is the owner of this kind of bank, but the banks are autonomous and self-regulated. The government usually appoints its representative in a prime or high position, who generally makes no interference.

6. **Foreign Ownership Bank:** The registered bank of one country which operates business in another country is called foreign bank in the latter country. It means banks established under foreign wonership are called foreign banks such as standard chartered bank

E) Regional Classification

1.**Regional Bank:** If any bank is established to conduct its activities in a specific location or region is called a regional bank. For example: Rajshahi Krishi Unnoyon Bank.

2. **National Bank:** If banking business is operated within the national boundary then this type of bank is called national bank.

3. **International Bank:** Banks which have their branches in more than one country are called international bank.

F) Classification by Registration

1. **Domestic Bank:** Banks those are formed, operated, directed and controlled under the Bangladesh Banking Companies Act are called domestic bank.

2. **Foreign Bank:** When a bank has registered in one country but conducts its operation in other country, it is called Foreign Bank.

G) Classification by Specialized Clients

1. **Labour Bank:** Banks which are established with a view to creating a tendency of savings among the labor, and work to develop their standard of living, are called labour bank. In our country there no such specialized bank but commercial banks do the same activities by opening branches in labour-oriented locations.

2. **Women bank:** Banks which are established to make women familiar with banking to encourage them for savings and above all, to specially offer them banking services are known as "Women Bank".

3. **School Bank:** School Bank has achieved popularity in developed countries. In our country such kind of bank was established in 1960's but it did not last long. To encourage savings among school students, they were supplied 'Saving Box' or bags.The main purpose of this kind of bank is to promote savings from the early student life.

4. **Consumer Bank:** Through this type of bank consumers are provided the facilities to purchase on credit. To implement this objective these banks supply 'Credit Card' to their clients so that consumers can purchase on credit.

H) Classification by Control

1. **State-controlled Bank:** The activities of this kind of banks are fully controlled and regulated by the state or the country.

2. **Partial-controlled Bank:** The bank activities of which are partially controlled by the state and partially by the principles of bank's own management body is known as partial controlled bank.

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3. **Market-controlled Bank:** Market economy has given birth to such kind of bank where there is no control or regulation of the government or any other authority. By the words 'Market Economy' it is meant that market gives answer to the 4 vital questions: 1. Who will produce? 2. For whom will the production be made? 3. What will be the selling price? 4. What will be the method of production? If answers of these questions are given by the government or central bank, this will impede market economy. The answers are found through market needs and supply.

I) Banks on the Basis of Religious Ideology

The banks which are established by different persons of different religious beliefs to implement and follow their respective religious orders and regulations are called banks on basis of religious ideology.

Islamic Bank was established as the first private bank in Bangladesh based on Islamic shariya law to provide banking services to the 90% Muslim population of the country. Although there are many similarities between Islamic banking and other commercial banking in terms of service provided, following products and services are seen in Islamic banking in collecting deposits and providing loan:

1. **Mudaraba:** To supply capital to the clients and provide support in capital management are the part of this service.

2. **Musaraka:** In such a banking service, business is done by joint initiatives of bank and clients on the basis of equal sharing of profit and loss.

3. **Murabaha:** If loan is given to a client to purchase anything (car, equipments), it is called 'Murabaha Service'. In such a case, the bank receives the loan amount in addition to some interest.

4. **Ezara:** Sometimes a bank purchases various products on its client's request and gives him/her those products to use for a certain duration of time. The client returns the products after the time and pays rent to the bank for the period of use. Besides, in Islamic banking several other products like kard-a-hasan, by-muazzel, bysalam etc. products are also available in Bangladesh. In Bangladesh,

Following Islamic banks are in operation:

1. Islami Bank Bangladesh Ltd.
2. Al-Arafah Islami Bank Ltd.
3. Social Islami Bank Ltd.
4. Exim Bank Ltd.
5. Shahjalal Islami bank Ltd.
6. First Security Islami Bank Ltd.
7. ICB Islami Bank Ltd.

Exercise

Multiple Choice Questions:

1. What type of bank is involved in silk production programme in Rajshahi district?

A) local bank B) consumer bank
C) national bank D) regional bank

2. Role of commercial bank in controlling the money market is-

i) to provide support to the government
ii) to work with the central bank
iii) to control inflation

Which one of the following answers is correct?

A) i and ii B) i and iii C) ii and iii D) i, ii and iii

Read the following stimulant and answer questions no.3 & 4

Now-a-days in most of the villages of our country, women entrepreneurs are thinking to introduce a new kind of banking named 'Echo Banking'

3. Which of the following kind of banking does 'Eco Banking' belong to?

A) structure-based B) owner-based
C) control-based D) special client based.

4. What are the objectives of establishing a specialized bank for women?

A) to improve standard of living

B) to encourage women in saving

C) to introduce new different type of banking

D) to encourage women in self employment.

Short Questions:

1. Which organization circulates currency in Bangladesh?

2 What are the preconditions of success in banking?

3. What is the minimum period of opening a fixed deposit account?

4. Which bank acts as a guardian of all other banks?

Creative Questions:

1. Seeing a new branch of a bank in Nobabpur Haat, Ramij asked his elder brother if a bank was very important in such a village market. Ramiz's brother then replied that this new bank would help a lot and play an important role in meeting our various financial needs of jute-traders like him who reside in this village. After a few days, it was seen that many people of their village started to take business initiatives including establishment of various industrial plants.

   A) What is the minimum number of directors of a public limited bank?

   B) Discuss liquidity principle of banks.

   C) In line with Ramiz's brothers, discuss role of banks in a developing country like ours.

   D) Local residents became interested to establish various industrial plants because of introduction of banking service. Explain whether you agree to this opinion.

2. 'Arunima Bank' was established in 2008 by taking legal approval. Recently a person has applied for a loan of tk.1.50 lac to this organization. He is capable to repay the loan and interested to mortgage his land. But there are some discrepancies in the documents he has supplied.

   1. What are the main objectives of chain banking?
   2. Why financial solvency is needed in banking activities? Explain.
   3. Approval of which organization was required in establishing 'Arunima Bank'? Explain.
   4. Will granting loan on mortgage to the applicant be sensible for 'Arunima Bank'? Explain.

Chapter Ten

An Introduction to Commercial Banks

Students, by studying this chapter, will be familiar with various commercial banks which play vital roles in the current world-economy. They will know about major and distinct aims and functions of commercial banks, their role in building the society, support in import and export, transfer of funds and development of agriculture and industry. Moreover, students will learn about the sources of fund of commercial banks, their ways of investment and areas of income expenditure.

After reading this chapter we shall be able to:

- explain and introduce the concept of commercial banks.
- evaluate the objectives of commerical banks.
- analyze the function of commerical banks.
- identify the sectors of income and expenditure.

10. Introduction

We generally mean commercial banks by the word 'bank'. Commercial banking system has come through a lot of modernization and specialization through ages. Usually commercial banks collect money from people that are surplus after meeting their essential requirements and lend it to the borrowers. A commercial bank is a profit oriented organization that makes profit by making deposit, transaction and lending of money.

'The type of organizations which make transaction of money or service exchangeable through money are called commercial bank.' In sum, commercial banks are those institutions which make business by receiving money and short term credit. Moreover, commercial banks contribute to the expansion of business and economic development in many countries by providing short, medium and long term credits.

10.1 Objectives of Commercial Banks

Although commercial banks are mainly established for making profit, they have some other objectives. Objectives of commercial banks are discussed below:

1) **Making Profit:** Commercial banks are established with the fundamental objective of making profit.
2) **Medium of Exchange:** Commercial banks introduce cheques, bills of exchange etc. as mediums of exchange.
3) **Capital Formation:** Collecting surplus money from the people and formation of capital is one of the main objectives of commercial banks.
4) **Welfare of People:** Besides earning profit public welfare is an indirect objective of commercial banks
5) **Assisting in Regulation of Loans:** Participating and assisting the central bank in formation of loan policy and loan regulation is one of the objectives of commercial banks.
6) **Assisting in Planning and Implementation:** Another purpose of commercial banks is to assist the central bank in proper development planning and implementation.
7) **Proper Distribution of Wealth:** Ensuring proper distribution of wealth by developing all sectors of economy in an equal pace through using monetary assets is another major goal of commercial banks.

8) **Employment Generation:** A purpose of commercial banks is to create opportunities for new employment by increasing economic activities.

9) **Mitigating Gap between Rich and Poor:** Through collecting deposit and offering loans, commercial banks enable participation of all class of people in economic activities, which help mitigate economic gaps between rich and poor classes of the society.

10) **Forming a Saving-tendency:** Another purpose of commercial banks is to create a saving tendency among people.

11) **Security:** Ensuring security of money, valuable ornaments of people is one of the purposes of commercial banks.

12) **Economic Stability:** Another purpose of commercial banks is to ensure economic stability by meeting the demand of funds in the market through providing loans and by working in line with the central bank's loan policy.

13) **Development of Trade and Industries:** An important purpose of commercial banks is to develop trade and industries by providing all-out support in import and export.

14) **Improving Standard of Living:** Improving standard of living by ensunng overall economic development is also a goal of commercial banks.

10.2 Functions of Commercial Banks

As a monetary organization, banks provide various kinds of service in industrial, commercial, social and economic development of a country. We can divide the functions of banks into two categories:

A) Main Functions

B) Special and Other Functions.

A) Main Functions

1) **Receiving Deposit and Payment of interest:** One of the main functions of commercial banks is to accept the savings of the holders in various types of deposits, such as current, savings and fixed deposit. A bank pays interests to the holders of fixed and savings accounts on their deposited amounts in certain rates. No interest is allowed for the current accounts but various other facilities are offered to them.

2) **Creation of Capital:** Banks create capital by accumulating all separate savings of people through different accounts.

3) **Granting Loans and Charging Interests:** Banks offer loans to the borrowers from the deposited money of their clients in various terms. Granting loan is an important function of a bank. Because by providing loans, a bank facilitates productive economic activities on one hand, and on the other hand, the amount of interest received from the borrowers is its main source of income. A bank charges higher rate of interest to its borrowers than the rate of interest it offers to the clients. It is the real interest which is a part of banks opertional income.

4) **Creation of Loan Deposit:** When a bank sanctions a loan to the customer, a deposit account is opened in his name and the amount is credited to his account. Then, the amount of money withdrawn by the borrower is debited from that account. In this way banks create deposits by sanctioning loans.

5) **Creating Medium of Exchange:** Banks use cheque, bill of exchange, certificate, bank draft, pay order, debit card, credit card etc. as payment mechanism and medium of financial transaction.

6) **Issue Notes:** Notes are usually not issued by commercial banks but by central bank. But commercial banks issue notes in indirect forms. For example, if you have a deposit of taka 1 lac in a saving account of Sonali Bank and if you buy a computer costing taka 60 thousand, you can make the payment through a check from your account. Thus, sometimes bank cheques serve as a medium of exchange as an alternative to notes issued by the government.

7) **Service as Trustee:** Commercial banks serve as trustee of properties of their customers and issue solvency certificates to them.

8) **Assistance in Import and Export:** An importer needs to convert local currency into foreign currency while an exporter needs to convert foreign to local currency, which is one of the functions of banks. Moreover, banks arrange for payment to the exporters on behalf of the importers through letter of credits (LC) in international business. Letter of Credit plays an important role in international trade by creating financial and business connections between importers and exporters. Providing operative assistance and suggestions in import and export related functions are

representative jobs of commercial banks.

9) **Service as a Government Treasury:** Central bank or any other selected bank serves as the treasury of the government.

10) **Change Bill of Exchange :** Banks change bills of exchange by barter in favour of its clients to support business and commerce.

B) Special and Other Functions

1) **Investment of Capital:** Besides disbursing loans, banks invest capital in industrial plants and commercial organizations, which help increase gross national production and capital mobilization.

2) **Role in Economic Growth:** Banks help a country's overall economic growth, especially development of trade, commerce, transportation, communication, housing and education etc.

3) **Money Transfer:** Banks transfer money inside and outside the country through their mediums of exchange.

4) **Security of Money:** Banks ensure security of public money by keeping deposits. Besides, clients can also protect ornaments, documents of their properties in banks by using locker service.

5) **Guidance:** Offering various types of business guidance when sought by the clients and management of their properties, for example, collecting house rents are also included in the functions of banks.

6) **Employment Generation:** As a monetary organization, banks help in employment generation and indirectly create new employments by supplying loans in a country's economy.

7) **Loan Regulation:** As the regulator, central bank regulates supply of money and loans by expanding and contracting loans given by the commercial banks. This is vital for ensuring economic stability and regulating inflation of money.

8) **Agricultural Development:** Banks facilitate agricultural development by offering loans and other assistance in this sector.

9) **Industrial Development:** Banks assist industrial plants by offering long-term loans.

10) **Regional Development:** Regional development is also supported by banks as they have network of branches in different areas of the country.

10.3 Sources of Funds of Commercial Banks

Commercial banks usually collect funds from the following sources, some of which are external sources and some of which are internal sources.

1) **Paid Capital:** First and foremost source of banks is paid capital. The capital is provided by the owners for joint stock company, and in cases of joint capital company, capital is formed by issuing shares.
2) **Reserve fund:** At the time of declaring dividend, a certain portion of the profit is set aside every year which is called reserve fund. This is fund is used as capital in future.
3) **Deposits:** Public deposits are a powerful source of funds to a commercial bank.There are three types of bank deposits (i) current deposits (ii) saving deposits and (iii) time deposits, which the clients do not withdraw all at once. So, the bank can earn more capital by using this money as loans or business investment.
4) **Borrowing:** Commercial banks in times of emergency borrow loans from the central bank or from other commercial banks of the country. They can also raise funds by issuing security bonds, credit certificates etc.

Activity : Which is the most popular commercial bank of your locality? Mention some reasons of that.

10.4 Sources of Income of Commercial Banks

Commercial banks earn money through different businesses, which are detailed below

1) **Interest on Loans:** Commercial banks lend money to the industrialists, traders or consumers, and charge interest on the loans. This is their main source of their mcome.
2) **Investment:** Commercial banks earn profit by investing in profitable sectors like shares, issuing letters of credit, government security etc.
3) **Bill Discount:** Commercial banks also earn money by making discounted payment of bills of exchange in advance.
4) **Commission Received from Bank draft, Traveller's cheque etc.:** Commercial banks earn a big amount of money by charging commissions on bank drafts, traveller's cheques etc.

5) **Correspondence:** Commercial banks also earn money through charges received by offering various correspondence services for the clients at their request.
6) **Rent of Lockers:** People can use lockers of commercial banks for safekeeping of their valuable documents, ornaments etc. by paying certain charges, which is also a source of income of the commercial banks.
7) **Agency Service:** Commercial banks perform numerous agency services on behalf of their clients, such as collection and payment of cheques or bills etc. Commercial banks charge commission for such services which earn income for them.
8) **Brokerage in Purchase or Trade of Shares:** Banks also earn through brokerage in purchasing or trading shares.
9) **Foreign Exchange:** Commercial banks earn profit by buying and selling foreign exchange.
10) **Import-Export:** Commercial banks earn income through commission or service charges for the role it plays in international trade and transactions.
11) **Letter of Credit:** Banks charge commissions for issuing letters of credit on behalf of importers.
12) **Trustee:** Banks also charge commissions for performing services as trustee.

10.5 Expenditures of Commercial Banks

Commercial banks make following expenditure in operating its business:

1) Giving interest to the clients on their deposits
2) Giving interest to the central bank on the borrowed amount
3) Giving interest to commercial banks for the received loans
4) Payment of salaries and allowances to the employees
5) Allowances of directors and managers
6) Auditor's charges
7) Charges for cases or other legal measures for collecting unrecovered loans

8) Rent for offices and warehouses

9) Tariffs and taxes

10) Insurance Premium

11) Charges for making correspondence through post office, telephone, telex, fax, swift etc.

12) Advertisement cost

13) Training charges of the employees

Exercise

Multiple choice questions

1. Which one is the source of income of commercial banks?

A. Rent of lockers B. Insurance Premium

C. Tariffs and axes D. Auditor's bill

2. In organizational operation, commercial banks –

i. spend money in advertisement.

ii. charge profit on deposited money in savings accounts.

iii. gives advance for apprenticeship.

Which of the following statement is correct?

A. i and ii B. i and iii

C. ii and iii D. i, ii and iii

Read the following stimulant and answer to question number 3

Garments trader Mr. Rafique is involved in international trading. He always takes help from commercial banks for his business.

3. On behalf of Mr. Rafique, commercial banks –

i. help in making payments of buyers and sellers.

ii. issue letters of credit.

iii. distribute profit.

Which of the afollowing statements are correct?

A. i and ii B. i and iii

C. ii and iii D. i, ii and iii

Short questions:

1. What do commercial banks issue as a medium of exchange?
2. How can a bank ensure security of public money?
3. What tendency is created among people because of commercial banks?

Creative questions:

1. Mrs. Shila Rozario holds a high position in a commercial bank. That has enabled her to help out two of her neighbours namely Mr. Md. Araf and Mr. Mridul in their businesses. Mr. Mridul is an international trader of jute, and Mr. Md. Araf is involved with real estate, where he requires borrowing a large amount of money. So, they both had to take assistance from her. Mrs. Rozario said, this is how we try to serve people of the country, service to people is our main mission.

   A. What is the basic purpose of a commercial bank?

   B. How does a commercial bank build its credit?

   C. Considering Mrs. Shila's actions, attempt to label the bank Mrs. Shila works in.

   D. 'Service to people is our main mission' – evaluate this speech made by Mrs. Rozario.

2. Worrying about the present social condition, school teacher Ms. Shaila Shabnam sought suggestion from a financial organization regarding her ornaments and valuable documents. She adhered to the suggestions given by the organization. While going to purchase a land with money in cash, she became a victim of hijacking on her way to Savar.

   A. What does an intended borrower need to open with a bank at the time of borrowing money?

   B. What is reserved fund? Clarify.

   C. What measures will Ms. Shaila Shabnam take regarding her valuable documents and ornaments? Explain.

   D. What role can a financial organization play to avoid the accident faced by Ms. Shaila Shabnam? Explain.

Chapter Eleven

Bank Deposit

By studying this chapter, students will be familiar with main sources of bank deposits or those of funds. This chapter discusses various kinds of bank accounts as well as processes to open and close bank accounts. Moreover, students will have an elaborate idea on various new and innovative banking productss, especially modem and electronic banking products. Initiative has been taken to introduce some products of electronic banking to students.

After reading this chapter we shall be able to:

- explain the concept of bank deposits.
- describe objectives and importance of bank deposits.
- analyze differnt bank account.
- practise how to open a bank account.
- assess the modern banking services.

11. The concept of bank deposit

Deposti is the main source of banking business. Deposit can be collected in many ways. In particular commercial banks collect deposit through opening different bank accounts on the basis of the needs of the clients and organization. Generally, commercial banks collect deposit through current, savings and fixed accounts and then utilize it effectively.

11.1 Purposes and Importance of Bank Deposits

Importance of bank deposit or bank account has completely different significance from the client's or depositor's and bank's perspectives. Again, in mirco-economics bank deposits play some important roles. These are briefly demonstrated in the chart below:

For Clients	For the Bank	Role in Micro-Economics
1. Security of money 2. Business transaction 3. Loan facility 4. Risk-free investment 5. Availing service 6. Meeting demand of excess fund	1. Receiving deposit 2. Investment 3. Foreign Exchange	1. Creating a habit of saving 2. Building capital 3. Investment and production 4. International trade

Chart number: 11.1: Purposes of bank deposit

A) For Clients:

1) **Security of Money**: One of the main purposes of bank is to ensure security of surplus money of the clients.
2) **Business Transaction:** Banks make business transaction through cash or other banking products, such as cheques, bills of exchange, bank draft etc.
3) **Loan Facility:** Banks offer loans to its current or savings account holders if needed. To receive this facility its necessary to open a bank account.
4) **Risk-free Investment:** Banks offer interests in certain rates to its depositors. It does not involve any risk like making an investment in the share market. Therefore it is a risk-free investment.

5) **Availing Services:** Banks offer various welfare activities to clients for opening a bank account and this attracts people to preserve bank accounts.
6) **Meeting Demand of Excess Fund:** Banks allow their clients to overdraft so that they become attracted to deposit money.

B) For the Bank:

1) **Collecting Deposit**: Banks accept the savings of people as deposits through various accounts and create their fund.
2) **Investment:** Banks invest the money collected from their clients in various profitable sectors. So it is a major objective of banks to ensure profitable investment.
3) **Foreign Exchange:** Banks also do business of foreign exchange, where sometimes the clients need to open bank accounts to receive the facilities offered by the banks.

C) In National Economic Development:

1) **Forming a Habit of Saving:** People form a habit of saving by opening bank accounts.
2) **Creating Capital:** Idle savings of people accumulate through bank account and create capital.
3) **Investment and Production:** Investment increases because of bank accounts which play important role in a country's production and economic growth.
4) **Employment Generation:** New employments are created due to enhanced economic activities facilitated by investment through bank accounts.
5) **International Trade:** Banks participate in export-import business through their clients' accounts and increase international trade.

11.2 Kinds of Bank Accounts

Banks offer scopes for opening various kinds of accounts according to their clients' demand. Bank accounts can be categorized into the following types based on people's occupation, need, time, location and demand:

1) Current Account
2) Savings Account
3) Fixed Deposit

In addition to the above three accounts, banks offer following more types of accounts:

4) School Savings Account
5) Insurance Savings Account
6) Foreign Savings Account
7) Deposit Pension Scheme Account
8) Loan Deposit Account
9) Resident Foreign Currency Deposit Account (RFCD)

1) **Current Account:** The kind of account that facilitates a client to deposit and withdraw money whenever a client wants is called a current account. This type of account is more suitable for businesspersons and usually no interest is offered for such an account. More than deposited amount of money can be withdrawn in such an account.
2) **Savings Accounts:** The account in which money can be deposited any time, but withdrawn twice a week or in such regulated frequency is called savings account. Usually fixed income people who are not involved in business open such accounts. A small rate of interest is offered for such accounts. However, now a days some banks don't impose any restrictions in frequency of depositing or withdrawing money.
3) **Fixed Deposit:** When a bank account is opened for a certain period of time, it is called fixed deposit. A fixed deposit account can usually be opened for a period of one month, three months, six months, one year, two years, five years etc. In such an account, high rates of interest is offered but a client cannot withdraw his/her money. However, the client may be allowed to withdraw money before the period ends if urgently needed, but in such a situation he/she will not be able to get any interest.
4) **School Savings Account:** Such an account is opened to create a tendency of savings among school students. The students deposit their savings in this kind of account.
5) **Insurance Savings Account:** Both life insurance and current account facilities are offered for such an account. A depositor is required to save a certain amount of money in this kind of account.
6) **Foreign Exchange Savings Account:** Any person or organization earning foreign currency can open such an account. Only foreign exchange is transacted in this kind of account.

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7) **Deposit Pension Scheme Account:** A certain amount of money is deposited every month within a certain time-frame. Money is thus saved for a certain period and at the end of this period the total savings is paid back along with a certain percentage of interest.
8) **Loan Deposit Accounts:** A businessperson, industrialist or any other borrower is given loan through cheque to transfering client's accounts for which he/she needs to open an account in the borrowing bank. The borrower can withdraw money according to his requirement from that account. Thus the deposit and credit are circulated.
9) **Resident Foreign Currency Deposit Account:** This kind of account is customized for those citizens of a country who regularly travel abroad. This account is helpful when the stipulated quota of using foreign currency is not enough during overseas travel. Usually exporters and importers as well as people involved in business relation or consultation services with foreign companies take this service.

11.3 Things to Consider while Opening a Bank Account

You may find several banks nearby. You now intend to open an account with a bank. But how will you decide which bank you will open your account with? Consider the following points while opening a bank account:

1) **Location of Bank:** Before opening an account, a depositor considers location of bank from his/her business centre or his/her residence.
2) **Efficiency:** Efficiency of the employees of bank is one of the issues to be considered before opening a bank account.
3) **Multifarious Services:** The bank that offers diverse services is more suitable for opening an account.
4) **Foreign Exchange:** Every branch of a bank cannot do foreign exchange. If you need to have foreign exchange facilities, you should examine whether the bank in which you intend to open your account is allowed to deal with foreign exchange.
5) **Good-will:** Good-will of a bank plays an important role in considering whether to open account. The bank that is better-known and older has a better good-will.
6) **Branches:** The bank that has more branches is more suitable.

7) **Scheduled Bank:** As the central bank, Bangladesh bank recognizes better banks as scheduled banks. Scheduled banks are considered more secured compared to non-scheduled banks

8) **Loan Facility:** The bank which has more liberal policy in offering loan is more preferred.

9) **Interest:** Clients prefer the banks that offer relatively higher interest on deposits and lower interest on loan is more acceptable.

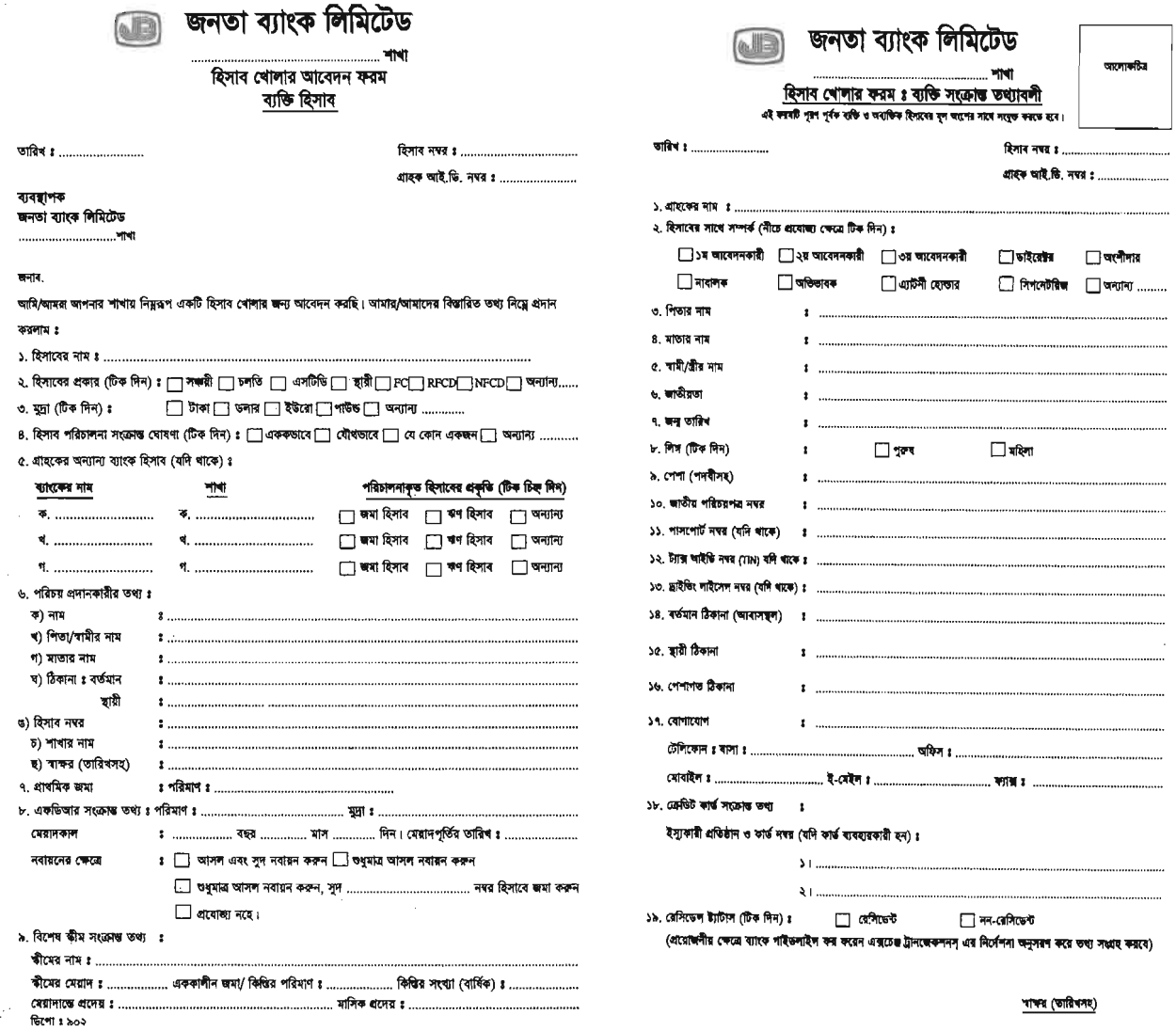
10) **Service Tariffs:** It's better to open an account with the bank that charges lower tariffs on more services.

11) **Electronic Banking:** The banks which offer services like online banking, any branch banking, ATM facilities etc. are now-a-days more attractive to the potential clients.

11.4 How to Open a Bank Account

A client may open different types of accounts in different banks according to his/her purpose and requirement. When he/she needs to make transaction of large amount of money and in high frequency for business or trade, it's better to open a current account. Otherwise savings account is preferable for both transaction and saving purposes. However, a client opens a fixed deposit account only if he/she is interested in making time-bound saving. To open any kind of account, a client is required to fill-in a client's details form. A sample of client's identity form is demonstrated in picture number 11.10. In this form, a client usually gives details of him/herself and his/her transactions:

- Name of the client
- Sources of income
- Photocopy of National Identity card/passport
- Occupation
- Photograph of the client
- Photograph of the nominee
- Amount of deposit
- Present address
- Permanent Address
- Business/Office Address
- Contact number, etc.



জনতা ব্যাংক লিমিটেড

..... শাখা

হিসাব খোলার আবেদন ফরম

ব্যক্তি হিসাব

তারিখ : ..... হিসাব নম্বর : .....

গ্রাহক আই.ডি. নম্বর : .....

ব্যবস্থাপক

জনতা ব্যাংক লিমিটেড

.....শাখা

জনাব,

আমি/আমরা আপনার শাখায় নিম্নরূপ একটি হিসাব খোলার জন্য আবেদন করছি। আমার/আমাদের বিস্তারিত তথ্য নিম্নে প্রদান করলাম :

১. হিসাবের নাম : .....

২. হিসাবের প্রকার (টিক দিন) : ☐ সঞ্চয়ী ☐ চলতি ☐ এসটিডি ☐ স্থায়ী ☐ FC ☐ RFCD ☐ NFCD ☐ অন্যান্য.....

৩. মুদ্রা (টিক দিন) : ☐ টাকা ☐ ডলার ☐ ইউরো ☐ পাউন্ড ☐ অন্যান্য .....

৪. হিসাব পরিচালনা সংক্রান্ত ঘোষণা (টিক দিন) : ☐ এককভাবে ☐ যৌথভাবে ☐ যে কোন একজন ☐ অন্যান্য .....

৫. গ্রাহকের অন্যান্য ব্যাংক হিসাব (যদি থাকে) :

ব্যাংকের নাম	শাখা	পরিচালনাকৃত হিসাবের প্রকৃতি (টিক চিহ্ন দিন)
ক.	ক.	☐ জমা হিসাব ☐ ঋণ হিসাব ☐ অন্যান্য
খ.	খ.	☐ জমা হিসাব ☐ ঋণ হিসাব ☐ অন্যান্য
গ.	গ.	☐ জমা হিসাব ☐ ঋণ হিসাব ☐ অন্যান্য

৬. পরিচয় প্রদানকারীর তথ্য :

ক) নাম :

খ) পিতা/স্বামীর নাম :

গ) মাতার নাম :

ঘ) ঠিকানা : বর্তমান :

স্থায়ী :

ঙ) হিসাব নম্বর :

চ) শাখার নাম :

ছ) স্বাক্ষর (তারিখসহ) :

৭. প্রাথমিক জমা : পরিমাণ : .....

৮. একউিআর সংক্রান্ত তথ্য : পরিমাণ : ..... মুদ্রা : .....

মেয়াদকাল : ..... বছর ..... মাস ..... দিন। মেয়াদপূর্তির তারিখ : .....

নবায়নের ক্ষেত্রে : ☐ আসল এবং সুদ নবায়ন করুন ☐ শুধুমাত্র আসল নবায়ন করুন

☐ শুধুমাত্র আসল নবায়ন করুন, সুদ ..... নম্বর হিসাবে জমা করুন

☐ প্রযোজ্য নহে।

৯. বিশেষ স্কীম সংক্রান্ত তথ্য :

স্কীমের নাম : .....

স্কীমের মেয়াদ : ..... এককালীন জমা/ কিস্তির পরিমাণ : ..... কিস্তির সংখ্যা (বার্ষিক) : .....

মেয়াদান্তে প্রদেয় : ..... মাসিক প্রদেয় : .....

ডিপো : ৯০২

জনতা ব্যাংক লিমিটেড

..... শাখা

হিসাব খোলার ফরম : ব্যক্তি সংক্রান্ত তথ্যাবলী

এই ফরমটি পূরণ পূর্বক ব্যক্তি ও অব্যক্তিক হিসাবের মূল আবেদনের সাথে সংযুক্ত করতে হবে।

আলোকচিত্র

তারিখ : ..... হিসাব নম্বর : .....

গ্রাহক আই.ডি. নম্বর : .....

১. গ্রাহকের নাম : .....

২. হিসাবের সাথে সম্পর্ক (নীচে প্রযোজ্য ক্ষেত্রে টিক দিন) :

☐ ১ম আবেদনকারী ☐ ২য় আবেদনকারী ☐ ৩য় আবেদনকারী ☐ ডাইরেক্টর ☐ অংশীদার

☐ নাবালক ☐ অভিভাবক ☐ এ্যাটর্নী হোল্ডার ☐ সিগনেটরিজ ☐ অন্যান্য .....

৩. পিতার নাম : .....

৪. মাতার নাম : .....

৫. স্বামী/স্ত্রীর নাম : .....

৬. জাতীয়তা : .....

৭. জন্ম তারিখ : .....

৮. লিঙ্গ (টিক দিন) : ☐ পুরুষ ☐ মহিলা

৯. পেশা (পদবীসহ) : .....

১০. জাতীয় পরিচয়পত্র নম্বর : .....

১১. পাসপোর্ট নম্বর (যদি থাকে) : .....

১২. ট্যাক্স আইডি নম্বর (TIN) যদি থাকে : .....

১৩. ড্রাইভিং লাইসেন্স নম্বর (যদি থাকে) : .....

১৪. বর্তমান ঠিকানা (আবাসস্থল) : .....

১৫. স্থায়ী ঠিকানা : .....

১৬. পেশাগত ঠিকানা : .....

১৭. যোগাযোগ : .....

টেলিফোন : বাসা : ..... অফিস : .....

মোবাইল : ..... ই-মেইল : ..... ফ্যাক্স : .....

১৮. ক্রেডিট কার্ড সংক্রান্ত তথ্য :

ইস্যুকারী প্রতিষ্ঠান ও কার্ড নম্বর (যদি কার্ড ব্যবহারকারী হন) :

১। .....

২। .....

১৯. রেসিডেন্ট ট্যাক্টাস (টিক দিন) : ☐ রেসিডেন্ট ☐ নন-রেসিডেন্ট

(প্রয়োজনীয় ক্ষেত্রে ব্যাংক সাইডলাইন ফর করেন এক্সচেঞ্জ ট্রানজেকশনস্ এর নির্দেশনা অনুসরণ করে তথ্য সংগ্রহ করবে)

স্বাক্ষর (তারিখসহ)

Chart number: 11.1: A Sample of Client's Details Form

In addition to these details, an intended client needs to apply with a reference and signature of an existing client of the bank. If the bank is satisfied after scrutizing all provided information, it opens an account for the applicant with a minimum initial deposit. All the details of the client furnished in the application form are saved in a database of the bank. To open an account, the applicant has to submit his/her recent pictures and detail information together with pictures and details of nominee in case of his/her absence. A copy of the applicant's national identity card or passport or driving license is also required to open the account. While opening an account for a company, a copy of trade license and resolution company meeting are also required.

11.5 How to Close a Bank Account

A client can close his/her bank account in various ways, which are discussed below:

1) Client's request letter to close the account (request letter approved by the company meeting in case of a company account)
2) Unused cheque-book, pass-book, debit/credit card must be returned.

If there is no unpaid loan from the client, the bank closes his/her account when requested.

11.6 Various Electronic Banking Products and Services

Development of computer and electronic products paved the way for innovative electronic products in banking business. Bangladesh has also progressed in electronic banking keeping pace with the modem world. In such a service, banking facility is available for 24 hours. We shall now be familiar with various electronic banking products:

1) Debit Card and Credit Card 2) ATM 3) Mobile Banking
4) SMS Banking
5) Internet Banking
6) Any Branch Banking/Online Banking
7) Call Centre

1) Debit Card and Credit Card

This is a kind of plastic card which a bank issues for its clients. Through this card, a client can purchase without any cash and withdraw money through ATM machine whenever needed. Debit card is used if the client has money in his/her account. The main difference between a debit card and a credit card is that a client can purchase with his/her debit only if there is money in his/her account, but he/she can buy products on credit even if he/she does not have money in the bank account. Credit card is a form of personal loan which the client has to pay with interest after a certain period of time. In this case, there is no obligation to have a bank account of the client.

Credit card and Debit card

Activity : Which electronic banking is mostly used in your locality? Make a list on the basis of priority.

2) ATM

ATM (Automated Teller Machine) is an electronic device through which a client can make some primary transactions such as withdrawing money, balance information, deposit cash or cheques without any help or presence of bank employees. This is a kind of plastic card which a bank issues for its clients. A client can, therefore, withdraw money by using this machine beyond 10 A. M. to 5 P. M. office hours.

ATM

3) Phone Banking

This is a kind of banking service by which clients can make their banking transactions using phone. In this case, the service is provided after verification of the client's identity.

Phone Banking

4) SMS Banking

Providing various types of banking services such as account balance information, request for cheque book etc. through SMS is called SMS banking.

SMS Banking

5) Internet Banking

Now-a-days client can transact his account through internet by using a website and a password. client can check his statement of account and can pay bill by internet service.

Internet Banking

6) Any Branch Banking

A client with account in one branch of the bank can make transaction from any other branch of the country by availing this service. For example, a client after opening his account at branch in Dhanmondi, Dhaka can make transaction in any branch located in Chittagong if he is provided this service.

Any branch Banking

11.7 Prospect of Modern Electronic Banking System and Bangladesh

Electronic banking system is now providing valuable banking facilities including money transfer, delivery of remittance and 24 hour banking services to remote areas of the country. To provide these services, a large investment is initially required by the bank. However, greater numberof people can be provided with these services through a small number of skilled employees by charging commission and service charge. These banking facilities are more convenient in terms of both service and income. That is why like many other countries of the world, E-banking is gaining a huge acceptance in Bangladesh. Electronic banking is playing a vital role in providing services to a large number of people living in distant locations of the country. It is hoped that banking sector will further expand to provide its facilities to all the people of the country irrespective of rich or poor, educated or uneducated. This banking system has a growing popularity every day because it can facilitate banking service 24 hours a day. Clients of banks in Bangladesh are becoming more inclined to E-banking facilities day by day because the service is becoming cheaper and more easily available in present competitive market.

Exercise

Multiple choice questions

1. Which is the purpose of deposit for clients?

A. Loan facility B. Building capital

C. Investment D. Foreign exchange

2. Which is the place for risk-free investment?

A. Business B. Share Market

C. Bank D. Private Organization

Read the following stimulant and answer to question numbers 3 and 4

Read the following stimulant and answer to question numbers 3 and 4 Mintu Borua and his family visited Cox's Bazar. There he made all his expenditures by using an electronic card. When his deposited money against the card finished, he asked his brother to deposit money in his bank account. Then he withdrew some money and returned Dhaka after completion of his visit.

3. Which of the following Mintu Borua availed to withdraw money?

A. Phone Banking B. ATM

C. SMS Banking D. Internet Banking

4. Mintu Borua's tour was successful due to
   i. Internet banking
   ii. Phone banking
   iii. SMS banking

Which of the following statement is correct?

A. i and ii B. i and iii C. ii and iii D. i, ii and iii

Short Questions:

a. What type of bank account does not offer any interest to its clients?
b. In what type of bank account a client is not allowed to withdraw his/her money with interest?
c. For whom resident foreign curreny deposit account is applicable?
d. Which banking product does not impose its user to open a bank account?

Creative questions:

1. Mr. Arif is a businessman in Dhaka. He has an account with "Jabed Bank" from which he can withdraw money as many times as he needs. Once he went to Chittagong for a visit. There he got some business products in a very cheap rate. He became able to buy those products with the help of that bank. It has branches in every district of Bangladesh, but it has no provision for cards.

A. What is the main source of fund in banking business?

B. Why does a bank offer different kinds of accounts? Explain.

C. What kind of bank account does Mr. Arif has with "Jabed Bank"? Explain.

D. A service of the bank makes business of clients like Mr. Arif easier - Elucidate.

2.

	Shoylee Bank	**Shoukhin Bank**
System of Service and Products	Traditional System	Computer Bank Debit Card Credit Card SMS Banking Any Branch Banking
Start Operation	2005	2005
Operational Cost (annual)	Taka 2,00,00,000/-	Taka 2,00,00,000/-
Income	Taka 50,00.000/-	Taka 80,00,000/-

Now the Directors of 'Shoylee Bank' intend to launch services similar to those of 'Shoukhin Bank'.

A. Who recognizes good banks as Scheduled Banks?

B. What kind of bank account incorporates insurance service? Explain.

C. What type of banking service is available in 'Shoukhin Bank'? Explain.

D. How far is it logical for 'Shoylee Bank' to introduce similar services of 'Shoukhin Bank'? Clarify.

Chapter Twelve

Bank and Client

From this chapter, student will learn about different services provided by a bank to its clients. Besides this, they can also gain knowledge about the bank's responsibilities towards the clients and clients' responsibilities towards the bank. Also, students will be able to realize the importance of account secrecy.

After reading this chapter we shall be able to :

- evaluate the nature of Bank- Client relationship
- discribe the responsibility of banks and clients towards each other.
- explain the necessity of account security.

12.0 Introduction

Main ideology of a bank is the relationship and belief between the Bank and Client. If any step of each party is against this belief and trust, then relationship between them gets disrupted, which causes the business to be dissolved.

12.1 Nature of Bank-Client Relation:

Persons, corporations ro companies involed in banking business are called "Banker". Such a way client means that person who is involved with the bank through his account or any of the service of the bank. On the basis of the functions and services provided by the bank to its clients, Bank - Client relationship can be considered as:

1. Debtor -Creditor relationship: When a client deposits money in the bank, the bank is a debtor and oppositely other party is creditor. Thus this relationship grows through depositing money by the client.

2. Contractual relationship: This relationship establishes through opening a bank account by the client. This relationship creates rights and responsibilities for both the parties. Under this contract, bank remains liable to return the client's deposited money.

3. Client's trustee: Most of the time banks give protection to the client's valuables, documents etc. through providing the locker services. This relationship can be considered as legal relationship.

4. Mortgage provider and receiver relationship: Bank provides loan against the client's property. This relationship is the outcome of the client's long term relation and trust on the bank and bank's long term services delivered to the clients.

5. Agency relationship: Payment dues and collect receivables are on behalf of the clients are the responsibilities of bank.

12.2: Bank's responsibilities towards the clients:

According to the principle of banking business, doing welfare and protecting client's interest are wholly the responsibilities of the bank.

1. Pay back money: Generally bank is bound to pay back the client's money. But it is paid on the fulfillment of some conditions specified by the contract. For example: If money is deposited in the current or savings account, client can withdraw money by writing the cheque and any approval of the bank is not needed.

2019

2. Secrecy of account: Bank never discloses any information of the clients except asked or advised by the Court, Bangladesh Bank or respective client.

3. Carrying on depositor's order: According to the order of the depositor, bank utilizes the deposited money. For example, if client orders bank to repay the dues to some specified person or party, bank does this as per order. In the same way if client orders bank, after meeting the condition, to colect the receivable, cheque or bill from a third party, the bank also does the same.

4. Exchanging of interest and service fee: Bank collects money of receivable interest on behalf of the client and deposits properly to the client's account.

5. Opportunity of easy loan repayment: Banks will have adequate fair dealing with the borrower for loan repayment and will give the client suitable time and opportunity to repay the loan.

12.3 Client's responsibilities towards the bank:

As bank has responsibilities toward the client, the client also has responsibilities towards the bank in a similar way. Client's responsibilities are the following:

1. Honesty: Client should show the honesty to maintain the relationship towards the bank. When opening a bank account, client should disclose all required information to the bank.

2. Loan repayment: Client should pay installment of loan as per repayment schedule. So ifloan cannot be repaid according to contract, then bank will collect money by seizuring or selling the mortgaged property of the client by the adoption of law.

3. Collection of interest: If there is overdrawing in current account, banks cut interest in the case of a borrower. Though a bank provides other benefits and services, it takes off some reasonable service charge. It is also the responsibility of a client to repay the interest and principal of a loan as per contract.

4. Cautiousness: Clients have to follow cautiousness and rules in writing cheques. For example, there should be correct signature, correct date and money referred in the cheque should be in the account etc. By 'cheque', we understand a written order to a bank from the depositor.

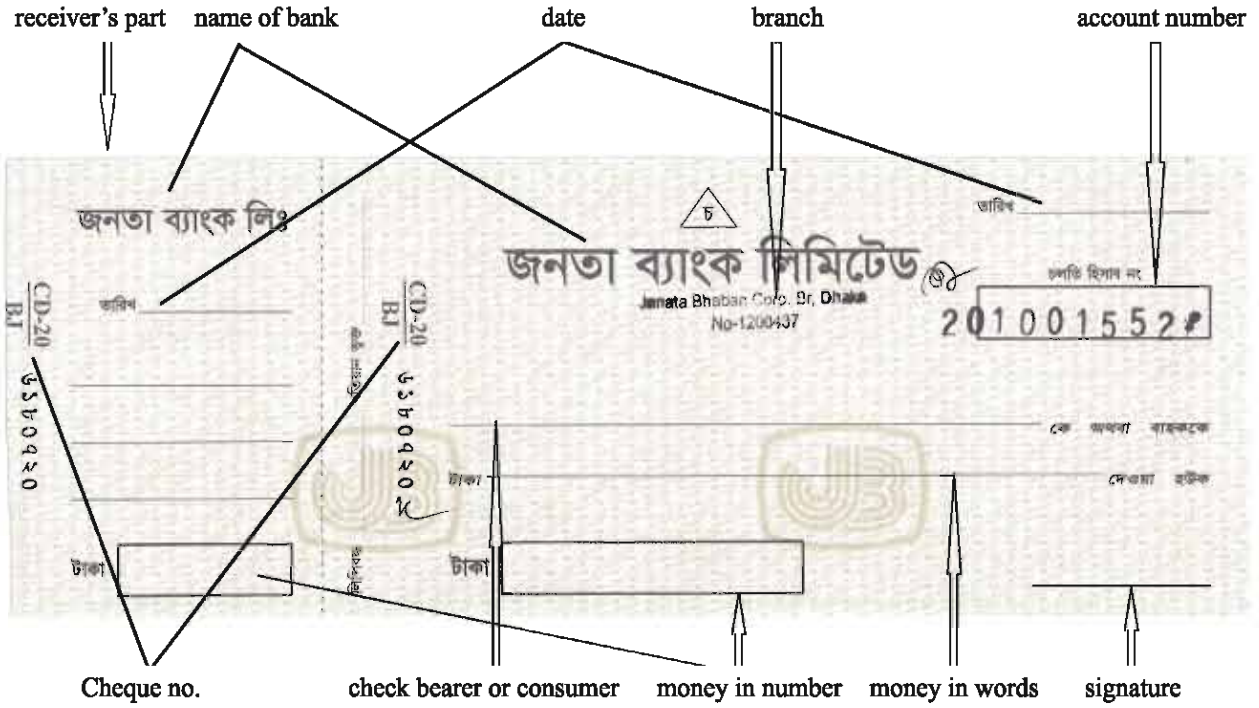
Cheque is a bill of exchange Generally the following types of Cheques are available to use.

1. Bearer Cheque: In case of this Cheque, bank is bound by order of the client to pay the specified amount of money to the specified bearer within a specified time period.

2. Order Cheque: Order Cheque is such a cheque where the money of cheque cannot be drawn from bank without named person. An order cheque is generally issued to a specific named payee across the bank's account.

3. Crossed Cheque: When a bearer cheque or order cheque is marked with 2 parallel crossed lines in the left corner of it for assurance of the collection of money and security, the cheque is called a crossed cheque. Generally between the two parallel lines, 'A/C payee' or 'and co.' is written. Money of this type of cheque is withdrawn after depositing it in an account instead of withdrawing it directly in cash.

Activity : Different types of cheque, will be filled by groups.



12.4 Secrecy of bank account and related information regarding this:

Relationship between the bank and client is of trust. This relationship dissolves only when conspiracy, fallacy or illegal activities occur. The possible reasons

those may dissolve the relationship between the bank and client:

1. Declared as bankrupt: If client is declared by the court as bankrupt, Bank-Client relationship dissolves.

2. Mental disorder: If client is not capable of doing the bank transaction or may not remember anything, at that time relationship will dissolve.

3. Garnishi order: If any Garnishi Order is enforced by the court, bank becomes bound to close the client account.

4. Bank's own decision: If client doesn't follow the bank's rules and principles, then bank may become bound to close the client's account.

5. Client's own decision: If client is not interested to continue his account, relation comes to an end.

6. Enmity due to war: If bank and client stay in a location on which division has taken place due to war, relationship dissolves.

7. Complete balance transfer: If client orders the bank to transfer all his account balance to the other bank, the client's account automatically closes down.

8. Death of client: Due to this reason account comes to an end.

9. Not making transactions for a long time: If any client doesn't make any transaction through the account for long time, account of this client will be closed automatically.

Exercise

Multiple Choice Questions:

1. What is Cheque?

a) Deed of contract b) Written notice

d) Personal document c) Written order of the depositor

2. Relationship between bank and client mainly is-

i) Debtor-creditor relationship
ii) Contractual relation
iii) Social relationship

Which one is correct?

a) i & ii b) ii& iii

c) i & iii d) i, ii & iii.

3. Which kind of relationship is expected between bank and client?

a) Social relationship

b) Business relationship

c) Personal relationship

d) Honest relationship

Short Questions:

1. What is the main motto of banking business?

2. Through which paper does a bank pay money by order to the payee?

3. Of whom does a bank work as representative?

Read the following stimulant and answer question no. 4

After running her business for long term, Miss. Sadia closes down all her banking transaction with the intention of going abroad.

4. How did the relationship between Sadia and bank come to an end?

a. Due to the declaration by the court
b. Because of the decision of the bank
c. Due to long term discontinuation of transaction
d. Due to client's decision.

Creative Question:

Even after trying for a long time, abed couldn't convince his friend Rafiq opening an account in a bank because he laways prefers to keep his money in an association run by Municipal Corporation due to certain procedure and interest rate. But some months Abed had withdrawn certain amount of money from the bank when he needed urgently to purchase different goods and decoration items. But Rafiq failed to withdraw the money in time though he submitted the application and requested the treasurer of Phulpur Co-oper-ative repeatedly.

a. What is the person who is involved in banking business called?
b. Explain what the Order Cheque is.
c. Explain the reasons why Abed could withdraw the money instantly.
d. Which one of the two institutions of Abed and Rafiq do you think is safer for depositing money?

Chapter Thirteen

Central Bank

By studying this chapter students will be able to learn about the roles and responsibilities of Central Bank as a guardian of commercial banks and its contribution to the development of economy, business, agriculture and industry of the country and they will also be able to realize the relationship between Central Bank and Government. In this chapter, concept on different levels of banking management and their responsibilities has also been given.

Picture: Bangladesh Bank

After reading this chapter we shall be able to:

- describe the concept of Central Bank.
- identify the objectives of Central Bank.
- analyze the functios of Central Bank.
- identify the relationship between Central Bank and Commercial Bank.
- evaluate the role of Central Bank in economic development.

13. The concept of Central Bank

During the 17th century, different kinds of banks were evolved in different regions; thus the money market controlling activity became most important activity. From this realization central bank was established. This bank couldn't leave money market in its own way rather it was liable to control the money market mechanism. At the very beginning of the civilization, central bank used to doing its responsibilities in currency circulation, money supply and credit control. Different economists have given the definition of central bank in different ways. for example:

According to Prof. R.S. Sayers, "The central bank is the organ of government that undertakes the major financial operations of the government and by its conduct of those operations and by other means, influences the behavior of financial institutions so as to support the economic policy of the government.".

According to Prof. Kisch & Elkin, "Central Bank is a bank whose essential duty is to maintain stability of the monetary standard."

According to Dr. S. N. Sen, 'Central Bank is as if the leader of banking society, the King and the Sun-everything. It rules the banking sector like a leader and like the sun(in monetary and currency market) gives out light and energy.'

13.1 Objectives of the Central Bank:

Central Bank is the non-profitable public welfare based national institution. Implementing welfare activities and strengthening the economy are the main responsibilities of central bank. The objectives of the central bank can be classified in following ways:

1. Strong money market formation and control: Main objective of the central bank is forming, monitoring and controlling the money market.

2. Economic development: Achieving economic prosperity through economic planning and implementation is the objective of the central bank.

3. Notes and currency circulation: According to the market demand, central bank circulates notes and currency and thereby preserves the currency value.

4. Controlling foreign currency: Central bank maintains the foreign currency reserve and controls the exchange rate through the application of different control mechanism.

5. Maintain currency value: Central Bank controls the home currency value with the intention of creating positive balance of trade.

6. Banker of the other Bank: Central Bank plays important role in structuring and building the efficiency of scheduled bank and non- scheduled bank thus it acts as a banker of the other banks.

7. Acts as a clearing house: Central Bank provides services to the commercial banks in the resolution of different exchange and maintain co-ordination with the commercial bank through all over the country.

8. Credit Control: One of the improtant objectives of central bank is to provide enough credits to the commerci banks if any excess credit is provided then central Bank has to ensure the financial market stability.

9. Gives advice to the Government: For the purpose of giving force in economic development of all internal and foreign aspects, central bank gives guidance and prepares plan and implemens these.

10. Maintains price stability: Central Bank controls money supply to keep price level stable through applying different mechanism. Instability of price creates dull economy.

11. Bank of the government: Preserves money of the government and reconciles different transaction on behalf of the government.

12. Public welfare: As central bank is not a profit oriented company, it performs different social and national activities for public welfare.

13. Equal distribution of wealth: Central Bank is liable to invest in all sectors and in all regions those have positive impact in national and economic prosperity .Thus equal distribution of wealth ensures balanced development.

14. Facilitate capital formation: By providing credit facilities to commercial banks, central bank increases the ability of their borrowers for capital formation.

15. Establishing organized banking system: Organized banking system development is another function of this bank.

16. Guide of banking system: Guiding other banks of the country is one of the main activities of the bank.

13.2 Functions of the Central Bank

Central Bank acts as a controller of money market and thus provides services towards the government, public and other banks and overall acts as a development body of the country.

a) General Functions:

1. **Notes and currency circulation:** Responsibility of circulating the money and currency is only vested upon central bank.
2. **Guardian of the money market:** Central Bank acts as a guardian and controller central bank of the money market.
3. **Creation of easy medium of exchange:** This bank creates easy medium of exchange like currency, bill, hundi etc.
4. **Credit control:** One of the main functions of this bank is controlling the credit. Bank Rate policy, Open Market Operation, deposit rate etc. are the different mechanisms of credit control.
5. **Controls the purchasing power of currency:** By increasing and decreasing money supply, central bank maintains the currency value in the country.
6. **Controls foreign exchange:** Central Bank controls the exchange rate and preserves prestigious value for home currency.
7. **Maintains stability in price level:** By controlling money supply, central bank maintains stability in price level.
8. **Maintains foreign currency reserve:** Exchange rate of any country depends on the foreign currency reserve. So central bank preserves necessary amount of foreign currency.
9. **Development of banking:** Central Bank is responsible to develop the infrastructure of total banking sector.
10. **Creating employment opportunity:** By approving and permitting to open different branches, central bank creates opportunity for employment.
11. **Monitoring Govt. loan:** On behalf of the government, central bank monitors the uses and repayment of loan given by the government.

(B) Functions as a government bank:

1. **Source of credit:** In financial crisis, government collect fund from central bank. So this bank is a source of government fund.

2. **Maintaining Government Fund:** Central Bank maintains government's fund, assets, and documents.

3. **Maintenance of accounts:** Central Bank maintains different accounts of the government.

4. **Handling of government transaction:** Central Bank provides supports in handling government documents.

5. **Purchase and sale of foreign currency:** On behalf of the country, central bank purchases and sells home currency and foreign currency.

6. **Advisor:** Central Bank acts as an advisor by involving in planning, policy making and implementing.

7. **Collection and maintenance of information and statistics:** Central Bank collects, coordinates and maintains different information and statistical data and reports in taking some plans.

8. **International relationship:** Central Bank helps to build relationship of government with the international financial organizations, foreign banks and other different foreign institutions.

9. **Representative of government:** Central Bank conducts different activities in home country and in foreign country as a representative of government.

C) Banker of the other banks:

1. **Approving and scheduling:** Central Bank does the activities of approving and scheduling in the establishment of new banks.

2. **Opening new branch:** This bank provides approval for opening a new branch.

3. **Clearing House:** Central Bank resolves different inter-banking transactions through clearing houses.

4. **Lender of the last resort:** At the time of financial crises when fund cannot be collected from anywhere, central bank extends its financial support. So central bank can be called as lender of the last resort.

5. **Controlling the activities of the commercial bank:** According to the rules, regulation and policy central bank controls the activities of commercial bank.

6. **Examine the accounts:** Central Bank examines the accounts of the commercial banks.

7. **Advisor and consultant:** Central Bank provides different advice and consultancy related with banking issues to the Commercial Banks.
8. **Statutory reserve:** All scheduled banks are bound to retain specified portion of their total deposit to the central bank.
9. **Representative of other banks:** Central Bank is the representative of all scheduled banks.
10. **Recovery of loan:** This bank provides support in loan recovery of scheduled bank.
11. **Development in international trade:** For the expansion of international trade, central bank provides different support to the commercial banks.

D) Other functions:

1. **Development in agriculture:** For the purpose of development in agricultural sector, central bank establishes agricultural bank under its direct supervision and makes arrangement to pay loan at low interest rate.
2. **Industrial development:** Central Bank extends its cooperation to the government in forming motivational plan and its implementation for the development of industrial sector.
3. **Development of co-operative bank:** Central Bank takes different initiatives for the development of co-operative banks.
4. **Research based activities:** To introduce different ways policies, methods for the development of trade and commerce, this bank conducts many research activities.
5. **Ensuring the utilization of loan:** Another main responsibility of central bank is to ensure the proper utilization of floated loan.

13.3 Formation and management of central bank:

Without one or two exceptions, all central banks of the world are formed under government ownership. In Bangladesh, central bank is known as "Bangladesh Bank". In Bangladesh Bank, as a chief of management, Governor is performing his responsibilities. As a chief of executive, assistant governors are co-operating the Governor.

In 1971 Bangladesh was born as an independent country. Being felt the necessity of a central bank, as a symbol of sovereignty, with the intension of economic restructuring of the financial sectors, Bangladesh Bank started its journey on 31 October in 1972 by the order named as " President Order - 127" in the Dhaka Office of the Local Deputy Governor of the then State Bank of Pakistan. However, effecting from 16 December, 1971 this ordinance was declared as the permanent and active rule of Bangladesh Bank. Bangladesh Bank is directed under the government ownership and is controlled by the same Governing Body of which the executive chief is Governor. 4 Deputy Governors, 12 Executive Directors and 1 Financial Advisor assist the Chief Executive. Moreover, Bangladesh Bank includes other officials in its management. Look at the organogram of Bangladesh Bank below.

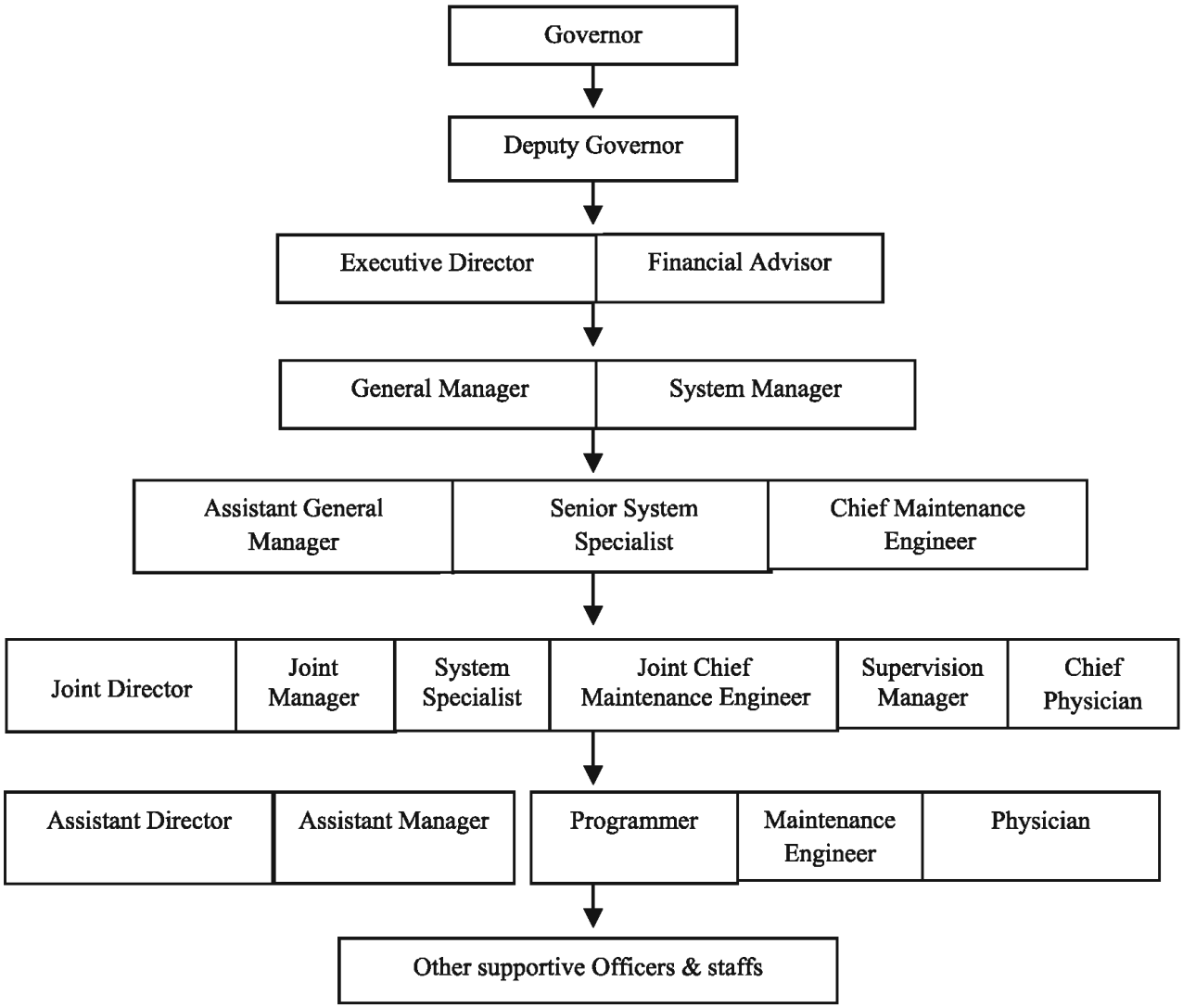


Figure 13.1: Organogram of Central Bank (Bangladesh Bank).

On the basis of divisions, functions of Bangladesh Bank can be classified as follows:

1. Note Issuing division
2. Banking Division
3. Accounts Division
4. Administrative Division
5. Banking Control Division
6. Bank Auditing Division
7. Exchange Control Division
8. Statistics Division
9. Secretariat Division

Activity: Mention some reasons of dependency of the commerical banks on the Central Bank.

13.4 Relationship between the Central Bank and Commercial Bank:

From the view point of economic activity, specially as a guardian of money market, central bank has following relationships with the commercial bank:

1. Statutory Reserve: It is obligatory for the commercial banks to maintain fixed portion of their deposit as a statutory reserve with the central bank.

2. Clearing House: Central Bank provides the clearing house facility to the commercial bank and thus a good relation creates between them.

3. Working Paper: Commercial Bank has to send weekly or monthly working paper to the central bank. By analyzing the information of the working paper, central bank gives guidance to the commercial bank.

4. Information provider: Central Bank collects worldwide information on the money market, economic condition and other related information on banking.

5. Liquidity: Every commercial bank has to maintain specific portion of total deposit as liquid asset and central bank always monitors the liquidity position of the commercial bank to protect the client's interest.

6. Role as guardian: Central Bank acts as a guardian of the commercial banks.

7.Lender of the last resort: Central Bank provides loan to the commercial banks.

8. Benefit of scheduling: Central Bank provides advice, guidance, financial support to the scheduled bank.

9. Bank- Client relationship: Bank provides loan to the clients and clients keep their savings in the bank as deposit.

10. Assistance: Central Bank implements its plan and policy through commercial banks.

11. Banker of all Banks: Central Bank is closely related with the commercial banks as banker of the other banks.

13.5 Role of Bangladesh Bank as a Central Bank in the economic development:

Bangladesh Bank has great contribution in economic development.
Bangladesh Bank mainly :

1. Issue Notes
2. Maintain the foreign currency reserve
3. Conducts Government's Account.
4. In distributing the industrial and agricultural loan, this bank Executes the policy of the government through commercial banks.
5. Controls scheduled and non- scheduled bank's activities and Monitoring Cell of Bangladesh Bank ties all commercial banks by rules and regulations.
6. Through the publication of economic and statistical information, Bangladesh Bank keeps aware of the entire scheduled banks.
7. Plays important role in transferring and handling the foreign currency.
8. Research Division of Bangladesh Bank provides guidance through different research based activities.
9. Through the monitoring of Rural Micro Credit projects and other special credit projects, this bank is struggling to ensure the economic freedom of the distressed class.
10. Creates employment opportunities to eliminate poverty.
11. Keeps on active rule to stabilize the price level by the controlling of foreign exchange rate.
12. Besides this, Bangladesh Bank assists government in implementing different developmental activities.
13. Now-a-days Bangladesh Bank is contributing lots in protecting the law and order of the country which also has great economic impact.

Exercise

Multiple Choice Questions:

1. What is the objective of Central Bank?

a) Acting as medium of exchange
b) keeping price level stable
c) Creating employment opportunity
d) Creating tendency of savings

2. Which Bank plays the role for maintenance of monetary value?

a) Central Bank
b) Commercial Bank
c) Investment Bank
d) Exchange Bank

Read the following stimulant and answer the questions 3 & 4-

The Sidr affected potato farmers of Borguna established a cooperative society named "Prottoy" which has improved their fate. After this they are thinking to take assistance from a financial institution.

3. Which financial institution can help in the programme of "Prottoy"?

a) Central Bank
b) Industrial Bank
c) Grameen Bank
d) Investment Bank

4. With the help of financial institution "Prottoy" -

i) Can play a role in country's agricultural development.
ii) Will get loan facility.
iii) Will improve life style.

Which one of the following is correct?

a) i & ii
b) ii & iii
c) i & iii
d) i, ii & iii

Short questions:

1. Which is the banker of all banks?
2. Which bank represents government in international arena?
3. Who acts as the head of management in Bangladesh Bank?
4. Where do the commercial banks put their compulsory deposit?

Creative Questions:

1. Mr. Karim is serving in 'B' bank, when he drew new notes for Eid his seven years old doughter asked him why the name of bank 'A' is written on all bank notes?

   a) Which banks' functions are controlled by Central Bank?

   b) What does a commercial bank deposit as 'Reserve' in the central bank? Explain.

   c) Which type of bank is bank "A"? Explain.

   d) What role will bank "A" play in liquidity crisis of bank "B"?

2. People of Ramgor are facing different types of problems as there is no commercial bank in that locality. Administration opened a branch of Bank "A" when the local people informed the local administration that there is no bank. The local people were benefitted. Later "B" bank opened another branch there. After a few days the central bank notify bank "B" to shutdown.

   a) By which way does central bank resolve inter bank transactions of commercial banks?

   b) Explain what central bank keeps stable?

   c) Why does the central bank notify bank "B" to shutdown? Explain.

   d) How can the central bank involve bank "A" to develop the area like Ramgor? Discuss.

The End

2019

Academic Year

9-10 Finance & Banking

দেশকে ভালোবাসো, দেশের মঙ্গলের জন্য কাজ কর
– মাননীয় প্রধানমন্ত্রী শেখ হাসিনা

বুদ্ধিহীনের কাছ থেকে
পরামর্শ না নেওয়াই ভালো

নারী ও শিশু নির্যাতনের ঘটনা ঘটলে প্রতিকার ও প্রতিরোধের জন্য ন্যাশনাল হেল্পলাইন সেন্টারে
১০৯ নম্বর-এ (টোল ফ্রি, ২৪ ঘণ্টা সার্ভিস) ফোন করুন

Ministry of Education

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